

अपंग व्यक्ती (समान संधी) व संपूर्ण  
सहभाग व हक्कांचे संरक्षण अधिनियम  
१९९५ नुसार, अपंगत्व तपासणी,  
मुल्यमापन व प्रमाणपत्र विह्वलपासणीच्या  
मार्गदर्शक सूचना

**महाराष्ट्र शासन**

**सार्वजनिक आरोग्य विभाग**

शासन निर्णय क्र.अप्रक्रि.२०१२/प्रक्र २९७/आरोग्य ६

मंत्रालय, मुंबई ४०० ०३२.

दिनांक :- ६ ऑक्टोबर, २०१२

- वाचा:- १) केंद्र शासनाचा पर्सनल् विथ डिसेबिलीटीज ॲक्ट, १९९५  
२) केंद्र शासनाची अधिसूचना क्रमांक ३.१६.१८/९७-एन आय दिनांक १ जून, २००१  
३) सामाजिक न्याय विभाग, भारत सरकार यांची अधिसूचना, २००९  
४) शासन परिपत्रक, सार्वजनिक आरोग्य विभाग, क्र.संकीर्ण/२०१०/प्र.क्र १८१/सेवा-२  
दि.२२ मार्च, २०१०

**प्रस्तावना :**

अंध व अपंग व्यक्ती (समान संधी, हक्कांचे संरक्षण व संपूर्ण सहभाग) अधिनियम १९९५ ची अंमलबजावणी राज्यात करण्यात येत आहे. या कायद्याच्या अंमलबजावणीसाठी अपंग व्यक्तींना अपंगत्वाचे प्रमाणपत्र देण्यासाठी राज्यातील सर्व जिल्हा रुग्णालयाच्या ठिकाणी जिल्हा शल्य चिकित्सक, उपजिल्हा व ग्रामीण रुग्णालयाच्या ठिकाणी वैद्यकिय अधिकृत तसेच मुंबई येथील सर ज.जी.समूह रुग्णालय, सेंट जॉर्जस रुग्णालय, गोकूळदास तेजपाल रुग्णालयाचे वैद्यकिय अधिकृत व वैद्यकिय महाविद्यालयाचे अधिष्ठाता यांच्या अध्यक्षतेखाली मंडळे स्थापन करण्यात आली असून त्या द्वारे अपंगांना अपंगत्वाचे प्रमाणपत्र देण्यात येते. अपंगांना अपंगत्वाचे प्रमाणपत्र रुग्णालयीन कामकाजाच्या दिवशी विनातक्रार उपलब्ध होतील याची दक्षता घेण्याबाबत सूचना देण्यात आलेल्या आहेत. या संदर्भात तक्रारी, अपिलांचे वाढते प्रमाण, न्यायालयीन प्रकरणे तसेच बोगस प्रमाणपत्रांची प्रकरणे निदर्शनास आलेली आहेत.

अशा बाबी टाळण्यासाठी भारत सरकारने वेळोवेळी निर्गमित केलेल्या अधिसूचनांच्या आधारे मार्गदर्शक तत्वे, कार्यपध्दती, अपिल पध्दती इत्यादी संबंधी संबिस्तर सूचना देण्याची बाब शासनाच्या विचाशधीन होती.

**शासन निर्णय:-**

भारत सरकारचा अपंग व्यक्ती (समान संधी, हक्कांचे संरक्षण व संपूर्ण सहभाग) कायदा १९९५ ची राज्यात प्रभावी अंमलबजावणी करण्याकरिता केंद्र शासनाने अधिसूचित केलेल्या

मार्गदर्शक सुचनांच्या आधारे, राज्यातील सर्व शासकीय रुग्णालयात अपंगत्वाचे मूल्यमापन व अपंग प्रमाणपत्र वितरणासाठी खालील नमुद केल्याप्रमाणे कार्यप्रणालीची अंमलबजावणी केली जाईल.

**अ) वैद्यकीय मंडळ :-**

- १) राज्यातील सर्व जिल्हा रुग्णालये, सामान्य रुग्णालये, शासकीय वैद्यकीय महाविद्यालयातील रुग्णालये व ग्रामीण तथा उपजिल्हा रुग्णालयांमधून तज्ञांच्या उपलब्धतेनुसार अपंग व्यक्तींना अपंगत्वाचे प्रमाणपत्र वितरित करण्यात येईल.
- २) अपंगत्व प्रमाणपत्र वितरित करण्यासाठी प्रत्येक रुग्णालयात एक वैद्यकीय मंडळ स्थापन करण्यात येत आहे. या मंडळाची रचना खालीलप्रमाणे राहिल.

रुग्णालय	अध्यक्ष	सदस्य सदस्य	सदस्य
जिल्हा सामान्य रुग्णालये	जिल्हा शल्य चिकित्सक	निवासी वैद्यकीय अधिकारी (चिकित्सा)	संबंधित विषयातील तज्ञ
उपजिल्हा, ग्रामीण, सामान्य रुग्णालये	वैद्यकीय अधिकक्षक	वरिष्ठ वैद्यकीय अधिकारी	
शासकीय वैद्यकीय महाविद्यालयातील रुग्णालये	अधिष्ठाता	वैद्यकीय अधिकक्षक	

उपरोक्त मंडळांमध्ये संबंधित विषयातील किमान एक तज्ञ या मंडळाचे सदस्य असतील, ज्यांचेवर संबंधित व्यक्तीच्या अपंगत्वाचे मूल्यमापन करण्याची जबाबदारी असेल.

- ३) अपंग प्रमाणपत्र हे किमान त्रिसदस्यीय समिती मार्फतच देण्यात यावे.
- ४) संबंधित जिल्ह्याचे जिल्हा शल्य चिकित्सक, त्यांच्या जिल्ह्यातील रुग्णालयाचे वैद्यकीय मंडळ स्थापन करण्याचे आदेश त्यांचे स्तरावर निर्गमित करतील व अधिष्ठाता शासकीय वैद्यकीय महाविद्यालय हे त्यांच्या रुग्णालयाच्या मंडळाचे आदेश काढतील. मंडळाचे आदेश काढतेवेळी संबंधित विषयाच्या तज्ञांचे पॅनल तयार करून आदेश काढण्यात यावेत.
- ५) बोर्डावरील / पॅनलवरील सदस्य अपरिहार्य कारणांमुळे उपलब्ध नसतील त्यावेळेस मंडळाच्या अध्यक्षाना संबंधित विषयातील उपलब्ध तज्ञांचा सभावेश करण्याचे अधिकार राहतील.
- ६) अपंग प्रमाणपत्रावर मंडळाचे अध्यक्ष तसेच सर्व सदस्यांचा त्यांच्या पदनामासह नावाचा उल्लेख बंधनकारक राहिल.

**ब) प्रमाणपत्रासाठी अर्ज :-**

- १) अपंग प्रमाणपत्र त्या जिल्ह्यातील रहिवाशांनाच देण्यात येईल.
- २) अपंग प्रमाणपत्र प्राप्त करण्यासाठी संबंधित व्यक्तीला परिशिष्ट-३ मधील नमुना क्र. १ मध्ये अर्ज करावा लागेल. अर्जदार अर्ज करण्यासाठी सक्षम नसल्यास त्याच्या वतीने कायदेशीर - प्रालक अर्ज करू शकतील.
- ३) अर्जासोबत जिल्ह्याचे रहिवाशी असल्याचा पुरावा म्हणून खालील नमुद केलेल्या कोणताही एक पुरावा सादर करावा लागेल.  
मतदार ओळखपत्र/वाहन चालविण्याचा परवाना/बँक पास बुक/पॅनकार्ड/पारपत्र/टेलिफोन किंवा विद्युत देयक/ ग्राम पंचायत, नगरपालिका, महानगरपालिका, छावणी मंडळाचे दिलेले रहिवाशी प्रमाणपत्र/निवासी अपंग विद्यालयातील विद्यार्थ्यासाठी संस्थेने दिलेले रहिवाशी प्रमाणपत्र तसेच आक्षर ओळखपत्राची सत्यपत्र सादर करणे बंधनकारक राहिल.

- ४) प्रमाणपत्र मिळण्यासाठीचा अर्ज हा वैद्यकीय मंडळाच्या सदस्य सचिवाकडे उपरोक्तीत कागदपत्रांसह सादर करण्यात यावा.
- ५) अठरा वर्षाव्हालील किंवा मतिमंद किंवा ज्या व्यक्तींना अपंगत्वामुळे स्वतः अर्ज करणे शक्य नसेल अशा बाबतीत त्यांच्या वतीने त्यांचे कायदेशीर पालक अर्ज करू शकतील.
- ६) अर्जासोबत नजिकच्या काळाबधीत काढलेली पासपोर्ट आकाराची दोन छायाचित्रे आवश्यक असतील. अपंगत्व दाखविणारे पूर्ण छायाचित्र सादर करू नये. प्रमाणपत्र देतेवेळी छायाचित्र स्वाक्षरित करावे.

**क) अपंगत्वाची तपासणी व मूल्यमापन :-**

- १) अपंग व्यक्तीची तपासणी संबंधित तज्ञाने करून त्यांचे तपासणीचे निष्कर्ष व अहवाल रुग्णपत्रिकेवर नोंदवावेत आणि त्यानंतर संगणक प्रणालीद्वारे प्रमाणपत्र वितरीत करण्यात यावे. तपासणीचे वेळेस संबंधित व्यक्तीने अपंगत्वासंबंधी वा त्या संबंधी वैद्यकीय उपचाराची कागदपत्रे, तपासणी अहवाल, उपचार करणाऱ्या डॉक्टरांचे निष्कर्ष अहवाल सोबत जोडावेत व त्या संबंधी आवश्यक माहिती तज्ञांना पुरवावी.
- २) परिशिष्ट एक मध्ये नमूद केल्याप्रमाणे अंध व अपंगत्वाच्या व्याख्येचा सर्वत्र वापर करण्यात यावा.
- ३) तपासणीसाठी ऑडिओलॉजिस्ट व विलनीकल सायकलॉजिस्ट उपलब्ध नसेल तर त्यांच्या सेवा कंत्राटी पध्दतीने घेण्यात याव्यात.
- ४) मतीमंद व्यक्तींना प्रमाणपत्र देण्यासाठी त्यांची तपासणी तीन टप्प्यांमध्ये करण्यात यावी:-  
Clinical Assessment, Assessment of Adaptive Behavior and Intellectual Functioning
- ५) संज्ञायास्पद कर्णबधीर अपंगत्वामध्ये त्या व्यक्तीची "बेरा" तपासणी करण्यात यावी. उपकरणांचा अभाव असल्यास, ही तपासणी जवळच्या शासकीय रुग्णालयात करण्यात यावी.
- ६) मतीमंद व ऑटीझम व्यक्तींसाठी स्वतंत्र प्रमाणपत्राचे नमुने परिशिष्ट-दोन मध्ये जोडले आहेत.
- ७) संबंधित व्यक्तीला प्रमाणपत्र देण्यापूर्वी कोणतेही वैयक्तिक मत नमूद न करता, समाज कल्याण व सबलिकरण मंत्रालय, भारत सरकार, नवी दिल्ली यांनी दिनांक १ जून, २००१ रोजी निर्गमित केलेल्या अधिनियमामधील मार्गदर्शक तत्वे व सूचनानुसार, संगणकामार्फत अपंगत्वाचे स्वरूप व टक्केवारी निश्चित केली जाईल.

**ड) प्रमाणपत्र वितरण :-**

- १) अपंगत्वाची तपासणी व प्रमाणपत्र वितरणासाठी बुधवार हा दिवस जिल्हा रुग्णालय/वैद्यकीय महाविद्यालय रुग्णालयासाठी तसेच शुक्रवार हा दिवस ग्रामीण रुग्णालय व उपजिल्हा रुग्णालयासाठी निश्चित करण्यात येत आहे.
- २) राज्यातील सर्व रुग्णालयातून एकाच प्रकारच्या प्रमाणपत्राचे वितरण होईल.
- ३) प्रमाणपत्राचे वितरण कोणत्याही परिस्थितीत तपासणी झालेल्या दिवशीच करण्यात येईल, याची खातरजमा संबंधित वैद्यकीय मंडळाच्या सदस्य सचिव यांनी करावी.
- ४) परिशिष्ट-३ मधील नमुना क्र. २, ३, ४, ५, व १०.१अ हे यापैकी संबंधित व्यक्तीचे अपंगत्व ज्या प्रकारात मोडते त्या प्रकारचे प्रमाणपत्र वितरीत करण्यात यावे.
- ५) वरीलप्रमाणे अपंगत्वाच्या व्याख्येत न बसणाऱ्या व्यक्तींना परिशिष्ट-३ मधील नमुना-५ मध्ये वरील नमून्यात संबंधिताचा अपंग प्रमाणपत्रासाठीचा अर्ज नाकारण्यात आल्याचे रितसरपणे

कळविण्यात यावे. त्यामध्ये अर्ज नकारण्याचे संयुक्तीक करण देखील नमूद करण्यात यावे. तसेच संबंधितांस या निर्णया विरुद्ध अपिल करावयाचे असल्यास उपसंचालक, आरोग्य सेवा यांच्या अध्यक्षतेखालील निदेशी मंडळाकडे अपिल करता येईल असा देखील उल्लेख करणे आवश्यक राहिल.

- ६) अशा प्रकरणात संबंधिताच्या अर्जाचा फेरविचार करून त्याच्यावर अन्याय झाला नाही याची खात्री करून मंडळाच्या अध्यक्षांनी दोन आठवड्यांच्या आत त्यावर निर्णय द्यावा. अशी प्रकरणे निकालात एक महिन्याच्या आत निकाली काढावीत.

#### इ) प्रमाणपत्र वैधता :-

- १) तात्पुरत्या अपंग प्रमाणपत्राचा वैध कालावधी हा जास्तीत जास्त ५ वर्षांपर्यंतचा राहिल. किंवा तज्ञाने प्रमाणपत्रावर नमूद केलेला कालावधी हा त्वापेक्षा कमी असेल तर नमूद केलेल्या कालावधीसाठी वैध राहिल.
- २) ज्या व्यक्तीचे अपंगत्व हे कायम स्वरुपी आहे, त्याच्या प्रमाणपत्राची वैधता ही कायमस्वरुपी असेल.
- ३) अपंगत्वाच्या सवलतीसाठी अपंगत्वाचे प्रमाण कमीतकमी ४०% असणे आवश्यक राहिल.

#### फ) सर्वसाधारण प्रशासकिय बाबी :-

- १) परिशिष्ट-१ मध्ये सामाजिक न्याय मंत्रालय, भारत सरकार यांची २००१ ची अधिसूचना जोडलेली आहे. त्यामध्ये विविध अपंगत्वाचे मुल्यमापन व प्रमाणपत्र वितरणाची कार्यपद्धती विस्तृतपणे नमूद केलेली आहे.
- २) अपंग व्यक्तीची वैद्यकिय तपासणीची व्यवस्था कोणत्याही परिस्थितीत तळमजल्यावरच व ज्या ठिकाणी रॅम्पची सुविधा आहे तेथेच करण्यात यावी. त्यांना तपासणीसाठी इतरत्र फिरावे लागणार नाही याची वैद्यकिय मंडळाच्या सदस्य सचिवांनी दक्षता घ्यावी.
- ३) अपंग व्यक्तीला प्रमाणपत्र मिळविण्यासाठी वारंवार यावे लागणार नाही याची दक्षता घेण्यात यावी. प्रमाणपत्र तपासणी झाल्यानंतर त्याच दिवशी संबंधितांना प्रमाणपत्र द्यावे.
- ४) नियम ४ अंतर्गत वितरीत केलेले हे प्रमाणपत्र फक्त प्रवास सवलत व शासनाच्या विविध कल्याणकारी योजनांसाठीच वापरता येईल. न्याय वैद्यकिय कामासाठी व भरपाईसाठी वापरता येणार नाही त्यासाठी वेगळे प्रमाणपत्र घेण्यात यावे. अपंग प्रमाणपत्रासाठीचे सर्व अभिलेख, अभिलेख कक्षामध्ये जतन करावेत.
- ५) रेल्वे किंवा एस.टी. भाड्यामध्ये सूट मिळविण्यासाठी लागणाऱ्या प्रमाणपत्रावर निवासी वैद्यकिय अधिकारी यांनी स्वाक्षरी करावी. आवश्यक असेल तर त्या सोबत जिल्हा शल्य चिकित्सक यांनी प्रति स्वाक्षरी करावी.
- ६) अपंग प्रमाणपत्र हरवल्यास संबंधित व्यक्तीने वैद्यकिय मंडळाच्या अध्यक्षांकडे अर्ज करावा. अर्जासोबत एफ.आय.आर. व संबंधित पोलीस स्टेशनचा सदर प्रमाणपत्र सापडत नसल्याचा अहवाल प्राप्त झाल्यानंतरच वैद्यकिय मंडळाने पुन्हा वैद्यकिय तपासणी करून अहवाल प्राप्त झाल्याच्या दिनांका पासून २० दिवसांच्या आत दुसरे प्रमाणपत्र देण्यात यावे.

- ७) अपात्रे व्यक्तींना अपंगत्वाचे प्रमाणपत्रादित्याचे आढळून आल्यास (विहीत पध्दती / योग्य मुल्यमापन न करता दिलेले) संबंधितांबिरुद्ध कायदेशीर कारवाई करण्यात येईल.
- ८) अपंगत्वाच्या व्याख्येसंबंधीच्या शंका/वर्गीकरण किंवा इतर काही संदिग्धता असल्यास त्या संबंधी संचालक आरोग्य सेवा यांच्या निर्णय अंतिम राहिल. अधिक माहितीसाठी [www.ccdisabilities.nic.in](http://www.ccdisabilities.nic.in) या संकेत स्थळाची मदत घ्यावी.

ग) तक्रार, अपिल व निर्देशी मंडळ :-

- १) एखाद्या व्यक्तीचे प्रमाणपत्राच्या स्वरूपावरून किंवा त्याला पाहिजे तसे प्रमाणपत्र न मिळाल्यास त्याला विभागीय उप संचालक, आरोग्य सेवा यांच्या अध्यक्षतेखालीय निर्देशी मंडळाकडे अपिल करण्याची मुभा राहिल.
- २) निर्देशी मंडळाने दिलेला निर्णय अंतिम राहिल व त्या विरुद्ध कोणतेही अपिल करता येणार नाही. निर्देशी मंडळाची रचना खालीलप्रमाणे असेल.

उपसंचालक, आरोग्य सेवा संचालनालय	अध्यक्ष
जिल्हा शल्यचिकित्सक (अपिल करावयाच्या वैद्यकीय मंडळाशी संबंधित नसलेले)	सदस्य
मानसोपचारतज्ञ/नेत्रतज्ञ/अस्थिव्यंगतज्ञ/ऑडिओलॉजिस्ट/शासकीय रुग्णालये	सदस्य(संबंधित अपंगत्वानुसार/संबंधित विषयामधील तज्ञ)

कर्णबधीर निर्देशी मंडळासाठी अलियावरजंग इन्स्टिट्यूट फिजिकली हॅन्डीकॅप, हाजीअली, मुंबई येथील ऑडीऑलॉजीस्टचा सदस्य म्हणून समावेश करण्यात यावा व मानसिक/मतिमंद निर्देशी मंडळासाठी महाराष्ट्र मानसिक आरोग्य संस्था, ससून हॉस्पिटल, पुणे येथील तज्ञांचा सदस्य म्हणून समावेश करण्यात यावा.

- ३) निर्देशी मंडळाकडे आलेली प्रकरणे मंडळाने शक्यतो कोणत्याही परिस्थितीत एक आठवड्याच्या आत निकाली काढावीत.

ह) संगणक आज्ञावली:-

- १) राज्यामध्ये अपंग प्रमाणपत्राचे वितरण संगणक प्रणालीद्वारे करण्याचा निर्णय झालेला असून माहिती व तंत्रज्ञान विभागाकडून सॉफ्टवेअर विकसित करण्याचे काम चालू आहे. सदर सॉफ्टवेअर विकसित झाल्यानंतर सुरुवातीला सर्व रुग्णालयातून संगणक प्रणालीद्वारेच प्रमाणपत्रांचे वितरण करण्यात येईल तो पर्यंतच्या कालावधीसाठी वितरीत करण्यात येणाऱ्या प्रत्येक प्रमाणपत्राची नोंद ही रुग्णालयातील विशिष्ट नोंदवहीत सविस्तरपणे घेण्यात यावी व त्यास विशिष्ट सांकेतांक क्रमांक देण्यात यावा. सदर सांकेतांक क्रमांकाचा रुग्णालयाच्या नावासह प्रत्येक प्रमाणपत्रावर उल्लेख करणे बंधनकारक राहिल.

परिशिष्ट १ - सामाजिक न्याय व सबलीकरण मंत्रालय, भारत सरकार अधिसूचना

क्रमांक ३.१६.१८/९७, एन.आय. दिनांक १ जून, २००९

परिशिष्ट २ - अपंग व्यक्तीसाठीची सुधारीत नियमावली, सामाजिक न्याय

व सबलीकरण मंत्रालय, भारत सरकार, २००९

परिशिष्ट ३ - अर्ज व प्रमाणपत्रांचे नमूने

महाराष्ट्राचे राज्यपाल यांच्या आदेशांनुसार व नाकने,

(अ.सं.फडतरे)

कक्ष अधिकारी, महाराष्ट्र शासन

प्रत,

मा. राज्यपाल यांचे सचिव, राजभवन, मुंबई

मा. मुख्यमंत्री यांचे प्रधान सचिव, मंत्रालय मुंबई

मा. उपमुख्यमंत्र्यांचे प्रधान सचिव, मंत्रालय, मुंबई

मा. मंत्री, आरोग्य यांचे खाजगी सचिव, मंत्रालय, मुंबई

मा. राज्यमंत्री, आरोग्य यांचे खाजगी सचिव, मंत्रालय, मुंबई

मुख्य सचिव, सामान्य प्रशासन विभाग, मंत्रालय, मुंबई

सचिव, सामाजिक न्याय व विशेष सहाय्य विभाग, मंत्रालय, मुंबई

अपर मुख्य सचिव/प्रधान सचिव/सचिव सर्व मंत्रालयीन विभाग

प्रधान सचिव विधानमंडळ सचिवालय, विधानभवन, मुंबई

संचालक, आरोग्य सेवा, मुंबई

संचालक, वैद्यकीय शिक्षण व संशोधन, मुंबई

आयुक्त, अपंग संचालनालय, पुणे

जिल्हाधिकारी (सर्व)

सहसंचालक/उप संचालक, आरोग्य सेवा, परिमंडळे (सर्व)

जिल्हा शल्यचिकित्सक (सर्व)

जिल्हा आरोग्य अधिकारी (सर्व)

जिल्हा माहिती अधिकारी (सर्व)

अधिष्ठाता, शासकीय वैद्यकीय महाविद्यालये (सर्व)

वैद्यकीय अधीक्षक, ग्रामीण रुग्णालये, उपजिल्हा रुग्णालये (सर्व)

सह सचिव/उप सचिव, सार्वजनिक आरोग्य विभाग, मंत्रालय, मुंबई

सार्वजनिक आरोग्य विभाग (सर्व कार्यासने व शाखा) मंत्रालय, मुंबई

निबड नस्ती

**MINISTRY OF SOCIAL JUSTICE AND EMPOWERMENT**  
**NOTIFICATION**  
New Delhi, the 1st June, 2001

**Subject :- Guidelines for evaluation of various disabilities and procedure for certification.**

**No. 16-18/97-NI. I.** - In order to review the guidelines for evaluation of various disabilities and procedure for certification as given in the Ministry of Welfare's O.M. No. 4-2/83-HW.-III, dated the 6th August, 1986 and to recommend appropriate modifications/alterations keeping in view the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, Government of India in Ministry of Social Justice and Empowerment, vide Order No. 16-18/97-NI. I, dated 28-8-1998, set up four committees under the Chairmanships of Director General of Health Services - one each in the area of mental retardation, Locomotor/ Orthopaedic disability, Visual disability and Speech & Hearing disability. Subsequently, another Committee was also constituted on 21-7-1999 for evaluation, assessment of multiple disabilities and categorization and extent of disability and procedures for certification.

2. After having considered the reports of these committees the undersigned is directed to convey the approval of the President to notify the guidelines for evaluation of following disabilities and procedure for certification:-

1. Visual impairment
2. Locomotor / Orthopaedic disability
3. Speech & hearing disability
4. Mental retardation
5. Multiple Disabilities.

Copy of the Report is enclosed herewith as Annexure.

3. The minimum degree of disability should be 40% in order to be eligible for any concessions/benefits.

4. According to the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Rules, 1996 notified on 31.12.1996 by the Central Government in exercise of the powers conferred by sub-section (1) and (2) of section 73 of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 (1 of 1996), authorities to give disability Certificate will be a Medical Board duly constituted by the Central and the State Government. The State government may constitute a Medical Board consisting of at least three members out of which at least one shall be a specialist in the particular field for assessing locomotor/Visual including low vision/hearing and speech disability, mental retardation and leprosy cured, as the case may be.

5. Specified test as indicated in Annexure should be conducted by the medical board and recorded before a certificate is given.

6. The certificate would be valid for a period of five years for those whose disability is temporary. For those who acquire permanent disability, the validity can be shown as 'Permanent'.

7 The State Governments/UT Administrations may constitute the medical boards indicated in para 4 above immediately, if not done so far.

8 The Director General of Health Services Ministry of Health and Family Welfare will be the final authority, should there arise any Controversy/doubt regarding the interpretation of the definitions/classifications/evaluations tests etc.

## **ANNEXURE**

Reports of the Committee set UP to review the guidelines for evaluation of various disabilities and procedure for certification and to recommend appropriate modifications/alternations keeping in view the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act 1995.

In order to review the definitions of various types of disability, the guidelines for evaluation of various disabilities and procedure for certification as given in the Ministry of Welfare's O.M.No.4-2/83-HW.III, dated the 6th August, 1986 and to recommend appropriate modifications/alterations keeping in view the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, five Sub-Committees were constituted in the areas of Mental Retardation, Orthopedic/Locomotor Disability, Visual Disability, Speech & Hearing and Multiple Disabilities, under the Chairmanship of Dr S.P.Agarwal, Director General of Health Services, vide the Ministry of Social Justice & Empowerment's Order No.16-18/97-NI.I, dated 28.8.1998 and 21.7.1999. A copy each of the Order is at Appendix.I.

2. These Sub-Committees, after detailed deliberations, have submitted their reports. List of participants of the meetings taken by the Committee is at Appendix.II. The reports of the Committees set up to review the guidelines for evaluation of various disabilities and procedure for certification on each of the area of the disabilities are given in Appendix.III.

## **APPENDIX.I**

**No 16-18/97-NI.I**

**Government of India**

**Ministry of Social Justice & Empowerment**

**New Delhi Dated 28th August 1998.**

## **ORDER**

In order to review the definitions of various types of disability, the guidelines for evaluation of various disabilities and procedure for certification as given in the Ministry of Welfare's O.M.No.4-2/83-HW.III, dated the 6th August, 1986 and to recommend appropriate modifications/alterations keeping in view the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, the following Sub-Committees are hereby constituted in the areas of Mental Retardation, Orthopedic/Locomotor Disability, Visual Disability and Speech & Hearing disability:

### **I Sub-Committee on Mental Retardation:**

1. Dr. S P Aggarwal, Chairperson  
Director General  
Health Services  
Ministry of Health and Family Welfare,  
Nirman Bhawan  
New Delhi-11

2. Dr.R.Srinivastava Murthy, Co-Chairperson  
Prof.&Head.  
Deptt. of Psychiatry,  
NIMHANS.  
Bangalore-22.

3. Dr. G G.Prabhu, Member  
Workchil Court  
Mysore.

4. Dr. (Mrs.)NeenaVohra, Member  
Consultant & HOD,



Psychiatry,  
Dr.R.M.L.Hospital, New Delhi.

5. Dr Anand Pandit, Member  
Hony. Prof & Director  
KEM Hospital Pune-11.

6. Dr. D.K Menon, Member-Secretary  
Director  
National Instt. for Mentally Handicapped Secunderabad

## **II. Sub-Committee on Locomotor / Orthopaedic Disability:**

1. Dr. S P Aggarwal, Chairperson  
DGHS.  
Ministry of Health Nirman Bhavan New Delhi-11

2. Dr. K.K. Singh. Co-Chairperson  
Prof. & Head.  
AHMS. New Delhi.

3. Dr. Balu Sankaran, Member  
FX-DOHS FX-Chairman ALIMCO. New Delhi

4. Dr. Suranjan Bhattacharji, Member  
HOD. Deptt. of PMR  
CMC Hospital. Vellore.

5. Dr. R K Srivastava Member  
Medical Superintendent.  
Safdarjung Hospital New Delhi.

6. Dr. B P Yadav Member  
Ex-Chairman  
Rehab Council of India  
New Delhi

7. Dr. B R Avadhani Member - Secretary  
Director IPH  
New Delhi

## **III. Sub - Committee on visual Disability.**

1. Dr. S P Aggarwal Chairperson  
D.G.H.S.  
Ministry of Health  
New Delhi

2. Dr.V.K.Dada. Co-Chairperson  
Head. Dr R.P.Centre.  
AIIMS. New Delhi.

3. Dr.Hari Mohan. Member  
Director.  
Mohan Eve Institute.  
Rajender Nagar.  
New Delhi

4. Shri Lal Advani Member  
Consultant  
Saket. New Delhi  
5. Dr. Bhushabn Punani Member

Blind Men's Association  
Ahmedabad

6. Shri S A Datrange Member  
National Association for the Blind  
Mumbai.

7. Dr. S R Shukla Member-Secretary  
Director  
NIVH.  
Dehradun.

#### **IV. Sub- Committee on Speech & Hearing Disability:**

1. Dr. S P Aggarwal Chairperson  
D.G.H.S. Ministry of Health.  
New Delhi

2. Dr.S.K.Kacker. Co-Chairperson  
Ex-Director.  
AIIMS. New Delhi.

3 Dr S Nikam Member  
Director AIIMS, Mysore.

4. Dr. J.M.Hans. Member  
Sr.ENT Surgeon. Dr. RML Hospital. New Delhi

5. Dr. M Raghunath Member  
Professor in Audiology.  
PGIMER. Chandigarh

6. Dr. (MRS) RekhaRoy Member-Secretary  
Director  
AYJNIHH Mumbai-400050.

2. The terms of reference for the Committees are as follows:

- a) Providing uniform definitions and categorisation of degree and extent of the disability.
- b) Recommending authorities competent to give certification.
- c) The Committees will submit their report in two months.

3. TA/DA to the members of the Committee will be borne by the concerned Institute whose Director is included as Member-Secretary of the Sub- Committee.  
(Gauri Chatterjee) Joint Secretary to Govt. of India  
Tele No. 3381641

To.  
All Members of the Committees.  
Copy for information to :  
PSs to Secretary (SJ&E)/AS(SJ&E),JS(DD)

ShastriBhavan, New Delhi. Dated 21st July1999

#### **ORDER**

It has been decided to constitute a Sub-Committee in the sector of Multiple Disability, in order to have standard definitions and guidelines for evaluation and procedure for certification, and to make appropriate recommendations keeping in view the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995. Accordingly, a Sub-Committee is hereby constituted in the sector of multiple disability, with the following Members:

1. Dr. SP Aggarwal, Chairman  
Director General of Health Services  
Ministry of Health & Family Welfare Nirman Bhavan, New Delhi.

2. Smt. Aloka Guha, Member  
Director,  
Spastics Society of Tamil Nadu,  
Opp.TTTI, Taramani Road,  
Ohennai-13

3. Dr. H.C. Goyal, Member  
Consultant,  
Rehabilitation Department Safdarjung Hospital, New Delhi.

4. Dr. Uma Tuli, Member  
General Secretary  
Amar Jyoti Charitable Trust, N-192, Greater Kailash -1 New Delhi - 110048.

5. Dr DK. Menon, Member- Secretary  
Director,  
National Institute for the Mentally Handicapped, Manovikasnagar, Secunderabad-500 009,

3. The terms of reference for the Committee are as follows:-  
(a) Providing uniform definitions and categorisation of degree and extent of the disabilities.  
(b) Recommending authorities competent to give certification.  
(c) The Committee will submit its report in two months.

4. TA/DA to the members of the Committee will be borne by the National Institute for the Mentally Handicapped, Secunderabad.  
(Gauri Chatterji)  
Joint Secretary to the Government of India.  
Tele No.338 1641

To:  
All Members of the Committees  
Copy for information to:-  
PSs to Secretary (SJ&E)/ AS (SJ&E)/ JS(DD).

#### **APPENDIX.II**

List of participants of the meeting held on 29.2.2000 under the Chairmanship of Dr. S.P. Agarwal, Director General of Health Services with the Members of Subcommittee constituted vide Order No.16-18/96-NI.I (PWD). dated 28.8.1998 of Ministry of Social Justice & Empowerment:

1. Dr. R.K. Srivastava, Addl. Director General of Health Services.
2. Dr. V.K. Dada, Head, R.P. Centre, AIIMS, New Delhi.
3. Dr. R.Srinivasa Murthy, Prof. & HOD, Deptt. of Psychiatry, NIMHANS, Bangalore.
4. Dr. O.K. Menon, Director, NIMH, Hyderabad.
5. Dr. Rekha Roy, Director, NIHH, Mumbai.
6. Dr. S.R. Shukla, Director, NIVH, Dehradun.
7. Dr. Dharmendra Kumar, Officiating Director, NIRTAR, Cuttack.
8. Dr. A.S. Bais, Deputy Director General (Medical).
9. Dr. S.Chug, Consultant in Medicine & Chairman, Medical Board, Dr. RML Hospital.

10. Dr. LS. Chauhan, ADG (IH),
11. Dr. A.N. Sinha, CMO (HA).

List of participants of the meeting held on 17.8.2000 under the Chairmanship of Dr. S.P. Agarwal, Director General of Health Services with the Members of Sub-Committee constituted vide Order No.16-18/96-NI.I (PWD), dated 21.7.1999 of Ministry of Social Justice & Empowerment.

1. Dr. R.K. Srivastava, Addl. Director General of Health Services
2. Dr. H.C. Goyal, Consultant & HOD, Rehabilitation, S.J.Hospital, New Delhi.
3. Dr. O.K. Menon, Director, National Institute for the Mentally Handicapped, Secunderabad.
4. Smt. Aloka Guha, Director, Spastic Society of Tamil Nadu, Opp. TTTI, Taramani Road, Chennai-13.
5. Dr. A.N. Sinha, CMO (HA).

### **APPENDIX.III**

#### **A. MENTAL RETARDATION**

1. Definition:- Mental retardation is a condition of arrested or incomplete development of the mind, which is especially characterised by impairment of skills manifested during the development period which contribute to the over all level of intelligence, i.e., cognitive, language, motor and social abilities.

#### **2. Categories of Mental Retardation:-**

2.1 Mild Mental Retardation:- The range of 50 to 69 (standardised IQ test) is indicative of mild retardation. Understanding and use of language tend to be delayed to a varying degree and executive speech problems that interfere with the development of independence may persist into adult life.

2.2 Moderate Mental Retardation: - The IQ is in the range of 35 to 49. Discrepant profiles of abilities are common in this group with some individuals achieving higher levels in visuo-spatial skills than in tasks dependent on language while others are markedly clumsy by enjoy social interaction and simple conversation. The level of development of language is variable: some of those affected can take part in simple conversations while others have only enough language to communicate their basic needs.

2.3 Severe Mental Retardation:- The IQ is usually in the range of 20 to 34. In this category, most of the people suffer from a marked degree of motor impairment or other associated deficits indicating the presence of clinically significant damage to or mal-development of the central nervous system.

2.4 Profound Mental Retardation: - The IQ in this category estimated to be under 20. The ability to understand or comply with requests or instructions are severally limited. Most of such individuals are immobile or severally restricted in mobility, incontinent and capable at most of only very rudimentary forms of non-verbal communication. They possess little or no ability to care for their own basic needs and require constant help and supervision,

#### **3. Process of Certifications:-**

3.1 A disability certificate shall be issued by a Medical Board consisting of three members duly

constituted by the Central/State Government. At least, one shall be a Specialist in the area of mental retardation, namely, Psychiatrist, Paediatrician and clinical Psychologist.

3.2 The examination process will consist of three components, namely, clinical assessment, assessment, of adaptive behaviour and intellectual functioning.

#### B. VISUAL DISABILITY

1. Definition: - Blindness refers to a condition where a person suffers from any of the condition, namely,

- i) total absence of sight; or
- ii) visual acuity not exceeding 6/60 or 20/200 (snellen) in the better eye with best correcting lenses; or
- iii) limitation of field of vision subtending an angle of 20 degree or worse;

2. Low Vision: - Persons with low vision means a person with impairment of vision of less than 6/18 to 6/60 with best correction in the better eye or impairment of field in any one of the following categories:-

- a) reduction of fields less than 50 degrees
- b) Heminaopia with macular involvement
- c) Altitudinal defect involving lower fields.

#### 3. Categories of Visual Disability

All with correction

Category	Better eye	Worse eye	% age impairment
Category 0	6/9-6/18	6/24 to 6/36	20%
Category I	6/18-6/36	6/60 to Nil	40%
Category II	6/40-4/60 or field of vision 10°-20°	3/60 to Nil	75%
Category III	3/60 to 1/60 or field of vision 10°	F.C. at 1 ft. to Nil	100%
Category IV	F. C. at 1 ft. to Nil or field of vision 10°	F.C. at 1 ft. to Nil	100%
One eyed persons	6/6	F. C. at 1 ft. to Nil or field of vision 10°	30%

Note: F.C. means Finger Count

#### 4. Process of Certification

A disability certificate shall be issued by a Medical Board duly constituted by the Central/State Government having, at least three members. Out of which, at least one member shall be a specialist in ophthalmology.

#### B. SPEECH & HEARING DISABILITY

1. Definition of Hearing: - A person with hearing impairment having difficulty of various degrees in hearing sounds is an impaired person.

#### 2. : Categories of Hearing Impairment.

Category	Type of Impairment	D B Level	Speech discrimination	% age of impairment
I	Mild hearing Impairment	DB 26 to 40 dB in better ear	80 to 100% in better ear	Less than 40% to 50%

State Government.

On representation by the applicant, the Medical Board may review its decision having regard to all the facts and circumstances of the case and pass such order in the matter as it thinks fit.

## **ANNEXURE-A LOCOMOTOR DISABILITY REVISED GUIDELINES FOR EVALUATION OF THE PERMANENT PHYSICAL IMPAIRMENT**

### **1.1 Guidelines for Evaluation of Permanent Physical Impairment of Upper Limb**

1. The estimation of permanent impairment depends upon the measurement of functional impairment and is not expression of a personal opinion.
2. The estimation and measurement should be made when the clinical condition has reached the stage of maximum improvement from the medical treatment. Normally the time period is to be decided by the medical doctor who is evaluating the case for issuing the PPI Certificate as per standard format of the certificate.
3. The upper limb is divided into two component parts; the arm component and the hand component.
4. Measurement of the loss of function of arm component consists of measuring the loss of motion, muscle strength and co-ordinated activities
5. Measurement of loss of function of hand component consists of determining the prehension, sensation and strength. For estimation of prehension opposition, lateral pinch cylindrical grasp, spherical grasp and hook grasp have to be assessed as shown in Hand Component of Form A Assessment Proforma for upper extremity.
6. The impairment of the entire extremity depends on the combination of the functional impairments of both components

### **2 ARM COMPONENT**

Total value of arm component is 90%

#### **1.2.1 Principles of evaluation of range of motion (ROM) of joints**

1. The value of maximum ROM in the arm component is 90%
2. Each of the three joints of the arm is weighed equally (30%;

#### **Example:**

The intra articular fractures of the bones of right shoulder joint may affect range of motion even after healing. The loss of ROM should be calculated in each arc of motion as envisaged in the Assessment Form A (Assessment Proforma for Upper Extremity).

Arc of ROM	Normal value	Active ROM	Loss of ROM
Shoulder Flexion-	0-220	110	50%
Rotation	0-180	90	50%
Abduction-Adduction	0-180	90	50%

Hence the mean loss of ROM of shoulder will be  $50+50+50/3 = 150/3 = 50\%$   
 Shoulder movements constitute 30% of the motion of the arm component, therefore the loss of motion for arm component will be  $50 \times 0.3 = 15\%$  If more than one joint of the arm is involved the loss of percentage in each joint is calculated separately as above and then added together.

### 1.2.2. Principles of evaluation of strength of muscles:

1 Strength of muscles can be tested by manual method and graded from 0-5 as advocated by Medical Research Council of Great Britain depending upon the strength of the muscles.

2. Loss of muscle power can be given percentages as follows:

Manual muscle Strength grading percentage	Loss of Strength in
0	100%
1	80%
2	60%
3	40%
4	20%
5	0%

3. The mean percentage of loss of muscle strength around a joint is multiplied by 0.30.

4. If loss of muscle strength involves more than one joint the mean loss of percentage in each joint is calculated separately and then added together as has been described for loss of motion.

### 1.23 Principles of evaluation of coordinated activities:

1 The total value for coordinated activities is 90%  
 Ten different coordinated activities should be tested as given in Form A. (Appendix.I of Annexure-A)

2. Each activity has a value of 9%

### 1.2.4 Combining values for the Arm Component:

The total value of loss of function of arm component is obtained by combining the value of loss of ROM, muscle strength and coordinated activities, using the combining formula.

$$\frac{a+b(90-a)}{90}$$

where a = higher value  
 b = lower value

Example

Let us assume that an individual with an intra articular fracture of bones of shoulder joint in addition to 16.5% loss of motion in arm has 8.3% loss of strength of muscles and 5% loss of coordination. These values should be combined as follows:

$$\text{Loss of ROM} - 16.5\% \qquad 16.5 + \frac{8.3(90-16.5)}{90}$$

Loss of strength of muscles - 8.3% = 23.33%  
 To add  
 Loss of coordination - 5%  $23.3 + 5(90 - 23.3) = 27.0\%$   
 90  
 So the total value of loss of function in Arm component will be 27.0%

### 1.3 HAND COMPONENT:

- 1 Total value of hand component is 90%
- 2 The functional impairment of hand is expressed as loss of prehension, loss of sensation and loss of strength

#### 1.3.1 Principles of evaluation of prehension:

- 1 Total value of prehension is 30%
- It includes

- a) Opposition - 8%  
 Tested against - Index finger - 2%  
                               - Middle finger - 2%  
                               - Ring - 2%  
                               - Little finger - 2%
- b) Lateral pinch - 5% - Tested by asking the patient to hold a key between the thumb and lateral side of index finger.
- c) Cylindrical grasp - 6% Tested for  
     i) Large object of 4 inches size - 3%  
     ii) Small object of 1 inch size - 3%
- d) Spherical grasp - 6% Tested for  
     i) Large object of 4 inches size - 3%  
     ii) Small object of 1 inch size - 3%
- e) Hook grasp - 5% - Tested by asking the patient to lift a bag

#### 1.3.2. Principles of Evaluation of sensation:

1. Total value of sensation in hand is 30%
2. It should be assessed according to the distribution given below:
  - i) Complete loss of sensation  
     Thumb 9%  
     Index finger 6%  
     Middle finger 5%  
     Ring finger 5%  
     Little finger 5%
  - ii) Partial loss of sensation: Assessment should be made according to percentage of loss of sensation in thumb/finger(s)

#### 1.3.3. Principles of Evaluation of strength

1. Total value of strength is 30%



2. It includes:

- i) Grip strength 20%
- ii) Pinch strength 10%

Strength of hand should be tested with hand dynamo-meter or by clinical method (grip method).

Additional weightage - A total of 10% additional weightage can be given to following accompanying factors if they are continuous and persistent despite treatment

- 1. Pain
- 2. Infection
- 3. Deformity
- 4. Mal-alignment
- 5. Contractures
- 6. Cosmetic disfiguration
- 7. Dominant extremity-4%
- 8. Shortening of upper limb

First 1" - No weightage

For each 1" beyond first 1" -2%

The extra points should not exceed 10% of the total Arm Component and total PPI should not exceed 100% in any case.

#### 1.3.4. Combining values of hand component:

The final value of loss of function of hand component is obtained by summing up values of loss of prehension, sensation and strength.

#### 1.3.5. Combining values for the Extremity:

Values of impairment of arm component and impairment of hand component should be added by using combining formula:

$$a+b \frac{(90-a)}{90} \quad \begin{array}{l} a = \text{higher value} \\ b = \text{lower value} \end{array}$$

#### Example:

$$\begin{array}{ll} \text{Impairment of Arm - 27\%} & 64 + \frac{27(90-64)}{90} \\ \text{Impairment of hand - 64\%} & = 71.8\% \end{array}$$

The total value can also be obtained by using the Ready Reckoner table for combining formula given at

#### Appendix.II of Annexure.A.

#### 2. Guidelines for Evaluation of permanent physical Impairment in Lower Limb.

The measurement of loss of function in lower extremity is divided into two components: Mobility and standing components

##### 2.1 Mobility Component:-

1 Total value of mobility component is 90%

2. It includes range of movement (ROM) and muscle strength

### 2.1.1. Principles of Evaluation of Range of Movement:

1. The value of maximum range of movement in mobility component is 90%

2. Each of three joints i.e. hip, knee and foot-ankle component is weighed equally - 30%.

#### Example:

A fracture of right hip joint bones may affect range of motion of the hip joint. Loss of ROM of the affected hip in different are should be assessed as given in Form B (Assessment Proforma for lower extremity). (Appendix.I of Annexure.A)

Affected Joint - Rt. Hip:

Arc of Movement	Normal ROM	Active ROM	Loss in percentage
Flexion-Extension	0-140	70	50%
Abduction-Adduction	0-90	60	33%
Rotations	0-90	30	66%

Mean loss of ROM of Rt Hip =  $50+33+66= 50\%$

3

Since the hip constitute 30% of the total mobility component of the lower limb the loss of motion in relation to the lower limb will be  $50 \times 0.30 = 15\%$

If more than one joint of the limb is involved the mean loss of ROM in percentage should be calculated in relation to individual joint separately and then added together as follows to calculate the loss of mobility component in relation to that particular limb,

#### For example.

Mean loss of ROM of Rt. Hip 50%

Mean loss of ROM Rt. Knee 40%

Loss of mobility component of Rt. Lower Limb will be

$$(50 \times 0.30) + (40 \times 0.30) = 27\%$$

### 2.1.2. Principle of Evaluation of Muscle Strength:

1. The value for maximum muscle strength in the limb is 90%

2. Strength of muscles can be tested by Manual Method and graded 0-5 as advocated by MRC of Great Britain depending upon the residual strength in the muscle group.

3. Manual muscle grading can be given percentage like below:

Power Grade of Ms	Loss of strength in percentage
0	100%
1	80%
2	60%
3	40%
4	20%
5	0%

4. Mean percentage of muscle strength loss around a joint is multiplied by 0.30 to calculate loss in relation to limb

5. If there has been a loss muscle strength involving more than one joint the values are added as has been described for loss of ROM

### 2.1.3. Combining values for mobility component:

1. The values of loss of ROM and loss of muscle strength should be combined with the help of

combining formula:  $a + \frac{b(90-a)}{90}$

(a = higher value, b = lower value)

**Example:** Let us assume that the individual with a fracture of right hip bones has in addition to 16% loss of motion, 8% loss of muscle strength also.

Combined values

Motion-16%  $16 + \frac{8(90-16)}{90}$

Strength-8% = 22.6%

### 2.2 Stability component:

1. Total value of the stability component is 90%

2. It should be tested by clinical method as given in Form B (Assessment Proforma for lower extremity). There are nine activities, which need to be tested, and each activity has a value of ten per cent (10%). The percentage valued in relation to each activity depends upon the percentage of loss stability in relation to each activity.

### 2.3 Extra points:

Extra points have been given for pain, deformities, contractures, loss of sensations and shortening. Maximum points to be added are 10% (excluding shortening). Details are as following.

i) Deformity	In functional position	3%
	In non-functional position	6%
ii) Pain	Sever(grossly interfering with function)	9%
	Moderate (moderately interfering with function)	6%
	Mild (mildly interfering with function)	3%
iii) Loss of sensation	Complete Loss	9%
	Partial Loss	6%
iv) Shortening	First 1/2"	Nil
	Every 1/2" beyond first 1/2"	4%
v) Complications	Superficial complications	3%

## Deep complications

### 3. Guidelines for Evaluation of Permanent Physical Impairment of Trunk (Spine)

#### Basic guidelines:

1. As permanent physical impairment caused by spinal deformity tends to change over the years, the certificate issued in relation to spine should be reviewed as per the standard format of the certificate given at **Annexure -B of Appendix.III.**

2. Permanent physical impairment should be awarded in relation to spine and not in relation to whole body.

3. Permanent physical impairment due to neurological deficit in addition to spinal impairment should be added by combining formula. The local effects of the lesions of the spine can be conventionally divided into traumatic and non-traumatic. The percentage of PPI in relation to each situation should be valued as follows:

#### 3.1 TRAUMATIC LESIONS:

##### 3.1.1 Cervical spine injuries

##### Percentage of PPI in relation to Spine

- |  |     |
|--|-----|
| i) 25% or more compression of one or two adjacent vertebral bodies with No involvement of posterior elements, No nerve root involvement, moderate Neck rigidity and persistent Soreness. | 20% |
| ii) Posterior element damage with radiological Evidence of moderate parties dislocation/subluxation including whiplash injury.   |     |
| A) With fusion healed, No permanent motor or sensory changes.  | 10% |
| b) Persistent pain with radiologically demonstrable instability.   | 25% |
| iii) Severe Dislocation:   |     |
| a) Fair to good reduction with or without fusion with no residual motor or sensory involvement;  | 10% |
| b) Inadequate reduction with fusion and persistent radicular pain  | 15% |

##### 3.1.2. Cervical Intervertebral Disc Lesions Spine

##### Percentage of PPI In relation to

- |   |     |
|---|-----|
| i) Treated case of disc lesion with persistent pain and no neurological deficit | 10% |
| ii) Treated case with pain and instability                                      | 15% |

##### 3.1.3. Thoracic and Thoracolumbar Spine Injuries:

- |   |     |
|---|-----|
| i) Compression of less than 50% involving one | 10% |
|---|-----|

vertebral body with no neurological manifestation

ii) Compression of more than 50% involving single vertebra or more with involvement of posterior elements, healed, no neurological manifestations persistent pain, fusion indicated 20%

iii) Same as (b) with fusion, pain only on heavy use of back 15%

iv) Radiologically demonstrable instability with fracture or fracture dislocation with persistent pain. 30%

### 3.1.3. Thoracic and Thoracolumbar Spine Injuries:

i) Compression of less than 50% involving one vertebral body with no neurological manifestation 10%

ii) Compression of more than 50% involving single vertebra or more with involvement of posterior elements, healed, no neurological manifestations persistent pain, fusion indicated 20%

iii) Same as (b) with fusion, pain only on heavy use of back 15%

iv) Radiologically demonstrable instability with fracture or fracture dislocation with persistent pain. 30%

### 3.1.4 Lumbar and Lumbosacral Spine: Fracture

a)	Compression of 25% or less of one or two adjacent Vertebral bodies, No definite pattern or neurological Deficit	15%
b)	Compression of more than 25% with disruption of Posterior elements, persistent pain and stiffness, healed With or without fusion, inability to lift more than 10 kgs.	30%
c)	Radiologically demonstrable instability in low lumbar or Lumbosacral spine with pain	35%

### 3.1 5 Disc lesion:

a)	Treated case with persistent pain	15%
b)	Treated case with pain and instability	20%
c)	Treated case of disc disease with pain activities of lifting moderately modified	25%
d)	Treated case of disc disease with persistent pain and stiffness, aggravated by heavy lifting necessitating modification of all activities requiring heavy weight lifting	30%

## 3.2 NON TRAUMATIC LESIONS:

### 3.2.1 Scoliosis:

Basic guidelines - following modification is suggested.

- The largest structural curve should be accounted for while calculating the PPI and not the compensatory curve or both structural curves.

### 3.2.2 Measurement of Spine Deformity:

Cobb's method for measurement, of angle of curve in the radiograph taken in standing position should be used. The curves have been divided into following groups depending upon the angle of major structural scoliotic deformity.

Group	Cobb's Angle	PPI in relation to Spine
I	0-20	NIL
II	21-50	10%
III	51-100	20%
IV	101 & above	30%

### 3.2.3 Torso Imbalance:

In addition to the above PPI should also be evaluated in relation to the torso imbalance. The torso imbalance should be measured by dropping a plumb line from C7 spine and measuring the distance of plumb line from gluteal crease.

Deviation of Plumb line	PPI
Upto 1.5 Cm	4%
1.6 - 30 Cm	8%
3.1 - 50 Cm	16%
5.1 and above	32%

### 3.2.4 Head Tilt over C7 spine PPI

Upto 15	4%
More than 15	10%

### 3.2.5 Cardiopulmonary Test

In cases with scoliosis of severe type cardiopulmonary function tests and percentage deviation from normal should be assessed by one of the following method whichever seems more reliable clinically at the time of assessment. The value thus obtained may be added by combining formula.

a. Chest Expansion	PPI
4 - 5 Cm.	Normal
Less than 4 cm	5% for each cm
reduction in Chest expansion	
No expansion	25%

### b counting in one breathe:

Breathe Count	PPI
More than 40	Normal

0-40	5%
0-30	10%
0-20	15%
0-10	20%
Less than 5	25%

**3.2.6 Associated Problems:** To be added directly but the total value of PPI in relation to spine should not exceed 100%.

- a) Pain
- mildly interfering with ADL 4%
  - moderately restricting ADL 6%
  - severely restricting ADL 10%
- b) Cosmetic Appearance:
- No obvious disfiguration with clothes on Nil
  - mild disfigurement 2%
  - severe disfigurement 4%
- c) Leg Length Discrepancy.
- First  $\frac{1}{2}$ " shortening Nil
  - Every  $\frac{1}{2}$ " beyond first  $\frac{1}{2}$ " 4%

d) Neurological deficit - Neurological deficit should be calculated as per established method of evaluation of PPI in such cases. Value thus obtained should be added telescopically using combining formula.

### 3.3 KYPHOSIS

Evaluation should be done on the similar guidelines as use for scoliosis with the following modifications:

#### 3.3.1 Spinal Deformity

	PPI
Less than 20	Nil
21-40	10%
41-60	20%
Above 60	30%

332 Torso Imbalance - Plumb line dropped from external ear normally falls at ankle level. The deviation from normal should be measured from ankle anterior joint line to the plumb line.

Less than 5 cm in front of ankle	4%
5 to 10 cm in front of ankle	8%
10 to 15 cm in front of ankle	16%
More than 15 cm in front of ankle	32%
(Add directly)	

#### Miscellaneous conditions:

Those conditions of the spine which cause stiffness and pain etc. are rated as follows.\*

	Conditions	Percentage PPI
A	Subjective symptoms of pain, no involuntary muscle spasm,, not substantiated by demonstrable structural pathology	-0%
B	Pain, persistent muscles spasm and stiffness of spine, substantiated by mild radiological	-20%

	change.	
C	Same as B with moderate radiological changes	-25%
D	Same as B with severe radiological changes involving any one of the regions of spine	-30%
E	Same as D involving whole spine	-40%

#### 4. Guidelines for Evaluation of PPI in cases of Short Stature/Dwarfism:

1. Recumbent length or longitudinal height below 3rd percentile or less than 2 Standard Deviation from the mean is considered to have short stature.
2. The evaluation of a Short Statured person should be considered only when it is of disproportionate variety and is accompanied by an underlying pathological conditions, e.g., Achondroplasia, Chondrodysplasia Punctata, spondyloepiphyseal dysplasia, mucopolysaccharidosis, etc.
3. The ICMR norms as enclosed at Appendix III of Annexure. A should be used as a guideline for the height.
4. Every 1" vertical height reduction should be valued as 4% permanent physical impairment.
5. Associated skeletal deformities should be evaluated, separately and total percentage of both should be added by combining formula.

#### 5. Guidelines for Evaluation of Permanent Physical Impairment in Amputees: Basic Guidelines:

1. In cases of multiple amputees if the total sum of permanent physical impairment is above 100%, it should be taken as 100% only.
2. If the stump is unfit for fitting the prosthesis additional weightage of 5% should be added to the value.
3. In case of amputation in more than one limb percentage of each limb is added by combining formula and another 10% will be added but when only toes or fingers are involved only 5% will be added.
4. Any complication in form of stiffness of proximal joint, neuroma infection, etc., should be given upto a total of 10% additional weightage.
5. Dominant upper extremity should be given 4% additional weightage.

#### Upper Limb Amputations physical function of each limb

#### PPI & loss of

- |    |                                       |      |
|----|---------------------------------------|------|
| 1. | Fore-quarter amputations              | 100% |
| 2. | Shoulder Disarticulation              | 90%  |
| 3. | Above Elbow upto upper 1/3 of arm     | 85%  |
| 4. | Above Elbow upto lower 1/3 of forearm | 80%  |



5.	Elbow disarticulation	75%
6.	Below Elbow upto upper 1/3 of forearm	70%
7.	Below Elbow upto lower 1/3 of forearm	65%
8.	Wrist disarticulation	60%
9.	Hand through carpal bones	55%
10.	Thumb through C.M. or through 1 <sup>st</sup> M.C. joint	30%
11.	Thumb disarticulation through metacarpophalangeal Joint or through proximal phalanx.	25%
12.	Thumb disarticulation through inter phalangeal joint or Through distal phalanx.	15%
(15%)	Index Finger	
(5%)	Middle Finger	
	Ring Finger	
(3%)	Little Finger	
(2%)		
13.	Amputation through Proximal phalanx or Disarticulation through M.P. Joint	15% 5% 3% 2%
14.	Amputation through Middle phalanx or Disarticulation through PP joint.	10% 4% 2% 1%
15.	Amputation through Distal phalanx or disarticulation through DIP joint.	5% 2% 1% 1%

### 1.3 Lower Limb Amputations:

1.	Hind quarter	100%
2.	Hip disarticulation	90%
3.	Above knee upto upper 1/3 of thigh	85%
4.	Above knee upto lower 1/3 of thigh	80%
5.	Through knee	75%
6.	B.K. upto 8 cm	70%
7.	B.K. upto lower 1/3 of leg	60%
8.	Through ankle	55%
9.	Syme's	50%

10. Upto mid-foot	40%
11. Upto fore-foot	30%
12. All toes	20%
13. Loss of first toe	10%
14. Loss of second toe	5%
15. Loss of third toe	4%
16. Loss of fourth toe	3%
17. Loss of fifth toe	2%

## **6. Guidelines for Evaluation of Permanent Physical Impairment of Congenital deficiencies of the limbs.**

### **6.1 Transverse Deficiencies-**

1. Functionally congenital transverse limb deficiencies are comparable to acquired amputations and can be called synonymously as congenital amputation, however, in some cases revision of amputation is required to fit in a prosthesis.

2. The transverse limb deficiencies therefore should be assessed on basis of the guidelines applicable to the evaluation of PPI in cases of amputees as given in the preceding chapter

#### **For example:**

	<b>PPI</b>
Transverse deficiency Rt. Arm complete (shoulder disarticulation)	90%
Transverse deficiency at thigh complete (hip disarticulation)	90%
Transverse deficiency Proximal Upper arm (Above elbow Amp.)	85%
Transverse deficiency at lower thigh (Above knee Amp. Lower 1/3)	80%
Transverse deficiency forearm complete (elbow disarticulation)	75%
Transverse deficiency lower forearm (Below Elbow Amp.)	65%
Transverse deficiency carpal complete (wrist disarticulation)	60%
Transverse deficiency Metacarpal complete (Disarticulation through carpal bones)	55%

### **6.2 Longitudinal Deficiencies:**

#### **6.2.1 Basic Guidelines**

1. In cases of longitudinal deficiencies of limbs due consideration should be given to functional impairment

2. In upper limb, loss of ROM loss muscular strength and hand functions like prehension, etc should be tested while assessing the case for PPI

3. In lower limb clinical method of stability component and shortening of lower limb should be given due weightage.

4 Apart from functional assessment the lost joint/part of body should also be valued as per distribution Given in chapter Guidelines for Evaluation of PPI in upper extremity and lower extremity The values so obtained should be added with the help of combining formula

**Example:**

Congenital Absence of humerus where forearm bones directly articulate with scapula.

There will be mild reduction in ROM and strength of muscles in the existing joints apart from loss of body part.

Loss of shoulder joint can be given - 30%  
Loss of ROM of Elbow/Shoulder & Wrist

All the components should be added together by the combining formula of

$$\frac{a + b(90-a)}{90}$$

6.2.2 In cases of loss of single bone in forearm the evaluation should be based on the principles of evaluation of Arm component which include Evaluation of ROM, Muscle strength and coordinated activities. The values so obtained should be added together with the help of combining formula.

6.2.3 In cases of loss of single bone in leg the evaluation should be based on the principles of evaluation of mobility component and stability components of the lower extremity. The values obtained should be added together with the help of combining formula.

**7. Guidelines for Evaluation of Physical Impairments in Neurological conditions.**

**1.1 Basic Guidelines:**

1. Assessment in neurological conditions is not the assessment of disease but the assessment of its effects, i.e. clinical manifestations.

2. These guidelines should only be used for central and upper motor neurone lesions.

3. Proformas (form A & B) will be utilized for assessment of lower motor neurone lesions, muscular disorders and other locomotor conditions.

4. Normally any neurological assessment for the purpose of certification has to be done six months after the onset of disease however exact time period is to be decided by the Medical Doctor who is evaluating the case and has to recommend the review of certificate as given in the standard format of certificate.

5. Total percentage of physical impairment in any neurological condition should not exceed 100%

6. In mixed cases the highest score will be taken into consideration. The lower score will be added telescopically to it by the help of combining formula  $\frac{a + b(90-a)}{90}$

7. Additional rating of 4% will be given for dominant upper extremity.

8. Additional weightage up to 10% can be given for loss of sensation in each extremity but the total physical impairment should not exceed 100%.

**7.2 Table-I**

Neurological Status	Physical Impairment
Altered sensorium	100%

### 7.3 Table-II

Intellectual Impairment (to be assessed by Clinical Psychologist)

Degree of Mental Retardation	IQ Range	Intellectual Impairment
Border line	70-79	25%
Mild	50-69	50%
Moderate	35-49	75%
Severe	20-34	90%
Profound	Less than 20	100%

### 7.4 Table - III

Speech defect	Physical Impairment
Mild dysarthria	Nil
Moderate dysarthria	25%
Severe dysarthria	50%

### 7.5 Table - IV

Type of Cranial Nerve Involvement	Physical Impairment
Motor cranial nerve	20% for each nerve
Sensory cranial nerve	10% for each nerve

Sensory cranial nerve 10% for each nerve

### 7.6 Table-V

#### Motor system Disability

#### Neurological Involvement

#### Physical Impairment

Hemiparesis:-

- Mild

25%

- Moderate

50%

- Severe

75%

## 7.7 Table-VI

### Sensory System Disability

Extent of Sensory Deficit	Physical Impairment
Anaesthesia	Upto 10% for each limb
Hypoaesthesia	Depending upon % of
Paraesthesia	Loss of sensation up to 30% depending
Hands/feet sensory loss	Upon % of loss sensation

## 7.8 Table - VIII

### Bladder disability due to neurogenic Involvement

Bladder Involvement	Physical Impairment
Mild (Hesitancy/Frequency)	25%
Moderate (precipitancy)	50%
Severe(occasional but recurrent Incontinence)	75%
Very Severe (Retention/Total Incontinence)	100%

## 7.9 Table - VIII

### Post Head Injury Fits and Epileptic Convulsions

Frequency/Severity of Convulsions	Physical Impairment
Mild - occurrence of one convulsion Only	Nil
Moderate 1-5 Convulsions/month on Adequate - Medication	25%
Severe 6-10 Convulsions/month on Adequate medication	50%
Very Severe more than 10 fits/months On adequate - Medication	75%

## 7.10 Table - IX

### Ataxia (Sensory or Cerebellar)

Severity of Ataxia	Physical Impairment
Mild (Detected on examination) –	25%
Moderate	50%
Severe	75%
Very Severe	100%

## **8 Guidelines for Evaluation of Physical Impairment due to Cardiopulmonary Diseases.**

### **8.1 Basic Guidelines:-**

1. Modified New York Heart Association subjective classification should be utilised to assess the functional disability.
2. The assessing physician should be alert to the fact that patients who come for disability claims are likely to exaggerate their symptoms. In case of any doubt patients should be referred for detailed physiological evaluation.
3. Disability evaluation of cardiopulmonary patients should be done after full medical, surgical and rehabilitative treatment available, because most of these diseases are potentially treatable.
4. Assessment of cardiopulmonary impairment should also be done in diseases which might have associated cardiopulmonary problems, e.g., amputees, myopathies, etc.
5. For respiratory assessment, routine respiratory functions test should be done, however, in cases of interstitial lung diseases, diffusion studies may be done.
6. In cases of Angina pectoris (chest pain) base line studies in resting ECG should be done. When there is persistence of symptoms, exercise or stress test should be done.

### **8.2 The proposed classification with loss of function is as follows:-**

Group 0: A patient with cardiopulmonary disease who is asymptomatic (i.e. has no symptoms of breathlessness, palpitation, fatigue or chest pain).

Group 1: A patient with cardiopulmonary disease who becomes symptomatic during his ordinary physical activity but has mild restriction (25%) of his physical activities.

Group 2: A patient with cardiopulmonary disease who becomes symptomatic during his ordinary physical activity and has 25-50% restriction of his ordinary physical activities.

Group 3: A patient with cardiopulmonary disease who becomes symptomatic during less than ordinary physical activity so that his ordinary physical activities are 50-75% restricted.

Group 4: A patient with cardiopulmonary disease who is symptomatic even at rest or on mildest exertion so that his ordinary physical activities are severely or completely restricted (75-100%).

Group 5: A patient with cardiopulmonary disease who gets intermittent symptoms at rest (i.e. patients with bronchial asthma, paroxysmal nocturnal dyspnoea, etc.)

### 1. Definition of Multiple Disabilities:

Multiple disabilities means a combination of two or more disabilities as defined in clause (i) of Section (2) of the Persons with Disabilities. (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, namely -

- I. Locomotor disability including leprosy cured
- II. Blindness/low vision
- III. Speech and hearing impairment
- IV. Mental retardation
- V. Mental illness.

### 2. Guidelines for Evaluation: -

In order to evaluate the multiple disability, the same guidelines shall be used as have been developed by the respective sub-committees of various single disability, viz. Mental retardation, locomotor disability, visual disability, and speech and hearing disability and recommended in the meeting held on 29.2.2000 under the Chairmanship of Dr. S.P. Agarwal, Director General of Health Services, Government of India, with reference to Order No.16-18/96-NI.I, dated 28th August, 1998 and communicated to Ministry of Social Justice & Empowerment, Government of India, vide letter No.S-13020/4/98-MH, dated 16th March, 2000.

However, in order to arrive at the total percentage of multiple disability, the combining formula

$$a + \frac{b(90-a)}{90} \text{ as given in the "Manual for Doctors to Evaluate"} \\ 90$$

Permanent Physical Impairment, Developed by Expert Group meeting on Disability Evaluation", shall be used, where "a" will be the higher score and "b" will be the lower score. However, the maximum total percentage of multiple disabilities shall not exceed 100%.

For example, if the percentage of hearing disability is 30% and visual disability is 20%, then by applying the combining formula given above, the total percentage of multiple disability will be calculated as follows:-

$$30 + \frac{20(90-30)}{90} = 43\%$$

### 3. Procedure for Certification of Multiple Disability:-

The procedure will remain the same as has been developed by the respective sub-committees on various single disabilities and finalized in a meeting under the Chairpersonship of Dr. S.P. Agarwal held on 29.2.2000. The final disability certificate for multiple disability will be issued by Disability Board which has given higher score of disability by combining the score of different disabilities using the combining formula, i.e.,  $a + \frac{b(90-a)}{90}$ . In case, where two scores of disability are

equal, the final certificate of multiple disability will be issued by any one of them as decided by Local authority.

### ASSESSMENT PERFORMA FOR UPPER EXTERMITY

Address..... O.P.B..... Dept.....

[illegible]





**FROM B**

Name.....Age.....Sex.....Diagnosis.....

Address.....O.P.D. No.....Dept.....

**Diagnosis**.....

[illegible]

	Muscles								
	4. Adductor Muscles								
	5. Rotator Muscles								
	(Ext. Int.)								
Muscles Strength	1. Flexor Muscles								
	2. Extensor Muscles								
<b>KNEE</b>									
Muscle Strength	1. Plantarflexor Muscles								
<b>ANKLE &amp; FOOT</b>	2. Dorsiflexor Muscles								
	3. Inverter Muscles								
	4. Evertor Muscles								

**STABILITY COMPONENT (Total Value 90%)**  
Based CLINICAL METHOD of Evaluation

1. Walking on plain surface	10
2. Walking on slope	10
3. Climbing Stairs	10
4. Standing on both legs	10
5. Standing on affected leg	10
6. Squatting on floor	10
7. Sitting Cross leg	10
8. Kneeling	10
9. Taking turns	10
<b>Total</b>	<b>90</b>

10% is given for complications like (I) Infection (ii) Deformity (iii) Loss of sensation.

# APPENDIX.II OF ANNEXURE .A

Ready Reckon Table for A + B(90-A)

90

	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	B(12)	B(13)	B(14)	B(15)
A(1)	1.99	3.98	3.97	4.96	5.94	6.93	7.92	8.91	9.90	10.8	11.8	12.8	13.8	14.8	15.8
A(2)	2.98	3.96	4.93	5.91	6.89	7.87	8.84	9.82	10.8	11.7	12.7	13.7	14.7	15.6	16.6
A(3)	3.97	4.93	5.90	6.87	7.83	8.80	9.77	10.7	11.7	12.6	13.6	14.6	15.5	16.5	16.6
A(4)	4.96	5.91	6.87	7.82	8.78	9.73	10.6	11.6	12.6	13.5	14.4	15.3	16.3	17.2	18.3
A(5)	5.94	6.89	7.83	8.78	9.72	10.6	11.6	12.5	13.5	14.4	15.3	16.3	17.2	18.2	19.1
A(6)	6.93	7.87	8.80	9.73	10.6	11.6	12.5	13.4	14.3	15.3	16.2	17.2	18.1	19.0	20.0
A(7)	7.92	8.84	9.77	10.6	11.6	12.5	13.4	14.3	15.2	16.2	17.1	18.0	18.9	19.9	20.8
A(8)	8.91	9.82	10.7	11.6	12.5	13.4	14.3	15.2	16.2	17.1	18.0	18.9	19.8	20.7	21.6
A(9)	9.90	10.8	11.7	12.6	13.5	14.4	15.3	16.2	17.1	18.0	18.9	19.8	20.7	21.6	22.5
A(10)	10.89	11.8	12.6	13.5	14.4	15.3	16.2	17.1	18.0	18.8	19.7	20.6	21.5	22.4	23.3
A(11)	11.88	12.7	13.6	14.5	15.3	16.2	17.1	18.0	18.9	19.7	20.6	21.5	22.4	23.2	24.1
A(12)	12.87	13.7	14.6	15.4	16.3	17.2	18.0	18.9	19.8	20.6	21.5	22.4	23.2	24.1	25.0
A(13)	13.86	14.7	15.5	16.4	17.2	18.1	18.9	19.8	20.7	21.5	22.4	23.2	24.1	24.9	25.8
A(14)	14.84	15.6	16.5	17.3	18.2	19.0	19.9	20.7	21.6	22.4	23.2	24.1	24.9	25.8	26.6
A(15)	15.83	16.6	17.5	18.3	19.1	20.0	20.8	21.6	22.5	23.3	24.1	25.0	25.8	26.6	27.5
A(16)	16.82	17.6	18.4	19.2	20.1	20.9	21.7	22.5	23.4	24.2	25.0	25.8	26.6	27.5	28.3
A(17)	17.81	18.6	19.3	20.2	21.0	21.8	22.6	23.4	24.3	25.1	25.9	26.7	27.5	28.3	29.1
A(18)	18.80	19.6	22.3	21.2	22.0	22.8	23.6	24.4	25.2	26.0	26.8	27.6	28.4	29.2	30.0
A(19)	19.79	20.5	23.3	22.1	22.9	23.7	24.5	25.3	26.1	26.8	27.6	28.4	29.2	30.0	30.8
A(20)	20.78	21.5	24.2	23.1	23.8	24.6	25.4	26.2	27.0	27.7	28.5	29.3	30.1	30.8	31.6
A(21)	21.77	22.5	25.2	24.0	24.8	25.6	26.3	27.1	27.9	28.6	29.4	30.2	30.9	31.7	32.5
A(22)	22.76	23.5	26.2	25.0	25.7	26.3	27.2	28.0	28.8	29.5	30.3	31.0	31.8	32.5	33.3
A(23)	23.44	24.4	27.1	25.0	26.7	27.4	28.2	28.9	29.7	30.4	31.1	31.9	32.6	33.4	34.1
A(24)	24.73	25.4	28.1	26.9	27.6	28.4	29.1	29.8	30.6	31.3	32.0	32.8	33.5	34.2	35.0
A(25)	25.72	26.4	29.1	27.8	28.6	29.3	30.0	30.7	31.5	32.2	32.9	33.6	34.3	35.1	35.8
A(26)	26.71	27.4	30.0	28.8	29.5	30.2	30.9	31.6	32.4	33.1	33.8	34.5	35.2	35.9	36.6
A(27)	27.70	28.4	31.0	29.8	30.5	31.2	31.9	32.6	33.3	34.0	34.4	35.4	36.1	36.8	37.5
A(28)	28.69	29.3	32.0	30.7	31.4	32.1	32.8	33.5	34.4	34.8	35.5	36.2	36.9	37.6	38.3
A(29)	29.68	30.3	32.9	31.7	32.3	33.0	33.7	34.4	35.1	35.7	36.4	37.1	37.8	38.4	39.1
A(30)	30.67	31.3	32.0	32.6	33.3	34.0	34.6	35.3	36.0	36.6	37.3	38.0	38.6	39.3	40.0
A(31)	31.66	32.3	34.9	33.6	34.2	34.9	35.5	36.2	36.9	37.9	38.2	38.8	39.5	40.1	40.8
A(32)	32.64	33.2	33.9	34.5	35.2	35.8	36.5	37.1	37.8	38.4	39.0	39.7	40.3	41.0	41.6

A(33)	33.63	34.2 7	34.9 0	35.5 3	36.1 7	36.8 0	37.4 3	38.0 7	38.7 0	39.3 3	39.9 7	40.6 0	41.2 3	41.8 7	42.5 0
A(34)	34.62	35.2 4	35.8 7	36.4 9	37.1 1	37.7 3	38.3 6	38.9 8	39.6 0	40.2 2	40.8 4	41.4 7	42.0 9	42.7 1	43.3 3
A(35)	35.61	36.2 2	36.8 3	37.4 4	38.0 6	38.6 7	39.2 8	39.8 9	40.5 0	41.1 1	41.7 2	42.3 3	42.9 4	43.5 6	44.1 7
A(36)	36.60	37.2 0	37.8 0	38.4 0	39.0 0	39.6 0	40.2 0	40.8 0	41.4 0	42.0 0	42.6 0	43.2 0	43.8 0	44.4 0	45.0 0
A(37)	37.59	38.1 8	38.7 7	39.3 6	39.9 4	40.5 3	41.1 2	41.7 1	42.3 0	42.8 9	43.4 8	44.0 7	44.6 6	45.2 4	45.8 3
A(38)	38.58	39.1 6	39.7 3	40.3 1	40.8 9	41.4 7	42.0 4	42.6 2	43.2 9	43.7 8	44.3 6	44.9 3	45.5 1	46.0 9	46.6 7
A(39)	39.57	40.1 3	40.7 0	41.2 7	41.8 3	42.4 0	42.9 7	43.5 3	44.1 0	44.6 7	45.2 3	44.8 0	46.3 7	46.9 3	47.5 0
A(40)	40.56	41.1 1	41.6 7	42.2 2	42.7 8	43.3 0	43.8 9	44.4 4	45.0 0	45.5 6	46.1 1	46.6 7	47.2 2	47.7 8	48.3 3
A(41)	40.54	40.0 9	42.6 2	43.1 8	43.7 2	44.2 7	44.8 1	45.3 6	45.9 0	46.4 4	46.9 9	47.5 3	48.0 8	48.6 2	49.1 7
A(42)	42.53	43.0 7	43.6 0	44.1 3	44.6 7	45.2 0	45.7 3	46.2 7	46.8 0	47.3 3	47.8 7	48.4 0	48.9 3	49.4 7	50.0 0
A(43)	43.52	44.0 4	44.5 7	45.0 9	45.6 1	46.1 9	46.6 6	47.1 8	47.7 0	48.2 2	48.7 4	49.2 4	49.7 9	50.1 3	50.8 3
A(44)	44.51	45.0 2	44.5 3	46.0 4	46.5 6	47.0 7	47.5 8	48.0 9	48.6 0	49.1 1	49.6 2	50.1 3	50.6 4	51.6 1	51.6 7
A(45)	45.50	46.0 0	46.5 0	47.0 0	47.5 8	48.0 0	48.5 0	49.0 0	49.5 0	50.0 0	50.5 0	51.0 0	51.5 0	52.0 0	52.5 0

# READY RECKONER TABLE FOR A + B(90-A)

90

	B(1)	B(2)	B(3)	B(4)	B(5)	B(6)	B(7)	B(8)	B(9)	B(10)	B(11)	B(12)	B(13)	B(14)	B(15)
A(46)	46.4	46.9	47.4	47.9	48.4	48.9	49.4	49.9	50.4	50.8	51.3	51.8	52.3	52.8	53.3
A(47)	47.4	47.9	48.4	48.9	49.3	49.8	50.3	50.8	51.3	51.7	52.2	52.7	53.2	53.6	54.1
A(48)	48.4	48.9	49.4	49.8	50.3	50.8	51.2	51.7	52.2	52.6	53.1	53.6	54.0	54.5	55.0
A(49)	49.4	49.9	50.3	50.8	51.2	51.7	52.1	52.6	53.1	53.5	54.0	54.4	54.9	55.3	55.8
A(50)	50.4	50.8	51.3	51.7	52.2	52.6	53.1	53.5	54.0	54.4	54.8	55.3	55.7	56.2	56.6
A(51)	51.4	51.8	52.3	52.7	53.1	53.6	54.0	54.4	54.9	55.3	55.7	56.2	56.6	57.0	57.5
A(52)	52.4	52.8	53.2	53.6	54.1	54.5	54.9	55.3	55.8	56.2	56.6	57.0	57.4	57.9	58.3
A(53)	53.4	53.8	54.2	54.6	55.0	55.4	55.8	56.2	56.7	57.1	57.5	57.9	58.3	58.7	59.1
A(54)	54.4	54.8	55.2	55.6	56.0	56.4	56.8	57.2	57.6	58.0	58.4	58.8	59.2	59.6	60.0
A(55)	55.3	55.7	56.1	56.5	56.9	57.3	57.7	58.1	58.5	58.9	59.2	59.6	60.0	60.4	60.8
A(56)	56.3	56.7	57.1	57.5	57.8	58.2	58.6	59.0	59.4	59.7	60.1	60.5	60.9	61.2	61.6
A(57)	57.3	57.7	58.1	58.4	58.8	59.2	59.5	59.9	60.3	60.6	61.0	61.4	61.7	62.1	62.5
A(58)	58.3	58.7	59.0	59.4	59.7	60.1	60.4	60.8	61.2	61.5	61.9	62.2	62.6	62.9	63.3
A(59)	59.3	59.6	60.0	60.3	60.7	61.0	61.4	61.7	62.1	62.4	62.7	63.1	63.4	63.8	64.1
A(60)	60.3	60.6	61.0	61.3	61.6	62.0	62.3	62.6	63.0	63.0	63.6	64.0	64.3	64.6	65.0
A(61)	61.3	61.6	61.9	62.2	62.6	62.9	63.2	63.5	63.9	64.2	64.5	64.8	65.1	65.5	65.8
A(62)	62.3	62.6	62.9	63.2	63.5	63.8	64.1	64.4	64.8	65.1	65.4	65.7	66.0	66.3	66.6
A(63)	63.3	63.6	63.9	64.2	64.5	64.8	65.1	65.4	65.7	66.0	66.3	66.6	66.9	67.2	67.5
A(64)	64.2	64.5	64.8	65.1	65.4	65.7	66.0	66.3	66.6	66.8	67.1	67.4	67.7	68.0	68.3
A(65)	65.2	65.5	65.8	66.1	66.3	66.6	66.9	67.2	67.5	67.7	68.0	68.3	68.6	68.8	69.1
A(66)	66.2	66.5	66.8	67.0	67.3	67.6	67.8	68.1	68.4	68.6	68.9	69.2	69.4	69.7	70.0
A(67)	67.2	67.5	67.7	68.0	68.2	68.5	68.7	69.0	69.3	69.5	69.8	70.0	70.3	70.5	70.8
A(68)	68.2	68.4	68.7	68.9	69.2	69.4	69.7	69.9	70.2	70.1	70.6	71.9	71.1	71.4	71.6
A(69)	69.2	69.4	69.7	69.9	70.1	70.4	70.6	70.8	71.1	71.3	71.5	71.8	72.0	72.2	72.5
A(70)	70.2	70.4	70.6	70.8	71.1	71.3	71.5	71.7	72.0	72.2	72.4	72.6	72.8	73.1	73.3
A(71)	71.2	71.4	71.6	71.8	72.0	72.2	72.4	72.6	72.9	73.1	73.3	73.5	73.7	73.9	74.1
A(72)	72.2	72.4	72.6	72.8	73.0	73.2	73.4	73.6	73.8	74.0	74.2	74.4	74.6	74.8	75.0
A(73)	73.1	73.3	73.5	73.7	73.9	74.1	74.3	74.5	74.7	74.8	75.0	75.2	75.4	75.6	75.8
A(74)	74.1	74.3	74.5	74.7	74.8	75.0	75.2	75.4	75.6	75.7	75.9	76.1	76.3	76.4	76.6
A(75)	75.1	75.3	75.5	75.6	75.8	76.0	76.1	76.3	76.5	76.6	76.8	77.0	77.1	77.3	77.5
A(76)	76.1	76.3	76.4	76.6	76.7	76.9	77.0	77.2	77.4	77.5	77.7	77.8	78.0	78.1	78.3
A(77)	77.1	77.2	77.4	77.5	77.7	77.8	78.0	78.1	78.3	78.4	78.5	78.7	78.8	79.0	79.1
A(78)	78.1	78.2	78.4	78.5	78.6	78.8	78.9	79.0	79.2	79.3	79.4	79.6	79.7	79.8	80.0
A(79)	79.1	79.2	79.3	79.4	79.6	79.7	79.8	79.9	80.1	80.2	80.3	80.4	80.5	80.7	80.8
A(80)	80.1	80.2	80.3	80.4	80.5	80.6	80.7	80.8	81.0	81.1	81.2	81.3	81.4	81.5	81.6
A(81)	81.1	81.2	81.3	81.4	81.5	81.6	81.7	81.8	81.9	82.0	82.1	82.2	82.3	82.4	82.5
A(82)	82.0	82.1	82.2	82.3	82.4	82.5	82.6	82.7	82.8	82.9	83.0	83.1	83.2	83.3	83.4

[illegible]

	B(16)	B(17)	B(18)	B(19)	B(20)	B(21)	B(22)	B(23)	B(24)	B(25)	B(26)	B(27)	B(28)	B(29)	B(30)
A(1)	16.92	17.8	18.8	19.7	20.7	21.7	22.7	23.7	24.7	25.7	26.7	27.7	28.6	29.6	30.6
A(2)	17.64	18.6	19.6	20.5	21.5	22.5	23.5	24.4	25.4	26.4	27.4	28.4	29.3	30.3	31.3
A(3)	18.47	19.4	20.4	21.3	22.3	23.3	24.2	25.2	26.2	27.1	28.1	29.1	30.0	31.0	32.0
A(4)	19.29	20.2	21.2	22.1	23.1	24.0	25.0	25.9	26.9	27.8	28.8	29.8	30.7	31.7	32.6
A(5)	20.11	21.0	22.0	22.9	23.8	24.0	25.7	26.7	27.6	28.6	29.5	30.5	31.4	32.3	33.3
A(6)	20.93	21.8	22.8	23.7	24.6	24.8	26.5	27.4	28.4	29.3	30.2	31.2	32.1	33.0	34.0
A(7)	21.76	22.6	23.6	24.5	25.6	25.6	27.1	28.0	29.1	30.0	30.9	31.8	32.8	33.7	34.6
A(8)	22.58	23.4	24.4	25.3	26.3	26.3	27.9	28.8	29.8	30.7	31.6	32.6	33.5	34.4	35.3
A(9)	23.40	24.3	25.2	26.1	27.0	27.9	28.8	29.7	30.6	31.5	32.4	33.3	34.2	35.1	36.0
A(10)	24.22	25.1	26.0	26.8	27.7	28.6	29.5	30.4	31.3	32.2	33.1	34.0	34.8	35.7	36.6
A(11)	25.04	25.9	26.8	27.6	28.5	29.5	30.3	31.3	32.0	32.9	33.8	34.7	35.5	36.4	37.3
A(12)	25.87	26.7	27.6	28.4	29.3	30.2	31.0	31.9	32.8	33.6	34.5	35.4	36.2	37.1	38.0
A(13)	26.69	27.5	28.4	29.2	30.1	30.9	31.8	32.6	33.5	34.3	35.2	36.1	36.9	37.8	38.6
A(14)	27.51	28.3	29.2	30.0	30.8	31.7	32.5	33.4	34.2	35.1	35.9	36.8	37.6	38.4	39.3
A(15)	28.33	29.1	30.0	30.8	31.6	32.5	33.3	34.1	35.0	35.8	36.6	37.5	38.3	39.1	40.0
A(16)	29.16	29.9	30.8	31.6	32.4	33.2	34.0	34.9	35.7	36.5	37.3	38.2	39.0	39.8	40.6
A(17)	29.98	30.7	31.6	32.4	33.2	34.0	34.8	35.6	36.4	37.2	38.0	38.9	39.7	40.5	41.3
A(18)	30.80	31.6	32.4	33.2	34.0	34.8	35.6	36.4	37.2	38.0	38.8	39.6	40.4	41.2	42.0
A(19)	31.62	32.4	33.2	33.9	34.7	35.5	36.3	37.1	37.9	38.7	39.5	40.3	41.0	41.8	42.6
A(20)	32.44	33.2	34.0	34.7	35.5	36.3	37.1	37.8	38.6	39.4	40.2	41.0	41.7	42.5	43.3
A(21)	33.27	34.0	34.8	35.5	36.3	37.1	37.8	38.6	39.4	40.1	40.9	41.7	42.4	43.2	44.0
A(22)	34.09	34.8	35.6	36.3	37.1	37.8	38.6	39.3	40.1	40.8	41.6	42.4	43.1	43.9	44.6
A(23)	34.91	35.6	36.4	37.1	37.8	38.6	39.3	40.1	40.8	41.6	42.3	43.1	43.8	44.5	45.3
A(24)	35.73	36.4	37.2	37.9	38.6	39.4	40.1	40.8	41.6	42.3	43.0	43.8	44.5	45.2	46.0
A(25)	36.56	37.2	38.0	38.7	39.4	40.1	40.8	41.6	42.3	43.0	43.7	44.5	45.2	45.9	46.6
A(26)	37.38	38.0	38.8	39.5	40.2	40.9	41.6	42.3	43.0	43.7	44.4	45.2	45.9	46.6	47.3
A(27)	38.20	38.9	39.6	40.3	41.0	41.7	42.4	43.1	43.8	44.5	45.2	45.9	46.6	47.3	48.0
A(28)	39.02	39.7	40.4	41.0	41.7	42.4	43.1	43.8	44.5	45.2	45.9	46.6	47.2	47.9	48.6
A(29)	39.84	40.5	41.2	41.8	42.5	43.2	43.9	44.5	45.2	45.9	46.6	47.3	47.9	48.6	49.3
A(30)	40.67	41.3	42.0	42.6	43.3	44.0	44.6	45.3	46.0	46.6	47.3	48.0	48.6	49.3	50.0
A(31)	41.49	42.1	42.8	43.4	44.1	44.7	45.4	46.0	46.7	47.3	48.0	48.7	49.3	50.0	50.6
A(32)	42.31	42.9	43.6	44.2	44.8	45.2	46.1	46.8	47.4	48.1	48.7	49.4	50.0	50.6	51.3
A(33)	43.13	43.7	44.4	45.0	45.6	46.3	46.9	47.5	48.2	48.8	49.4	50.1	50.7	51.3	52.0
A(34)	43.96	44.5	45.2	45.8	46.4	47.0	47.6	48.3	48.9	49.5	50.1	50.8	51.4	52.0	52.6
A(35)	44.78	45.3	46.0	46.6	47.2	47.8	48.4	49.0	49.6	50.2	50.8	51.5	52.1	52.7	53.3
A(36)	45.60	46.2	46.8	47.4	48.0	48.6	49.2	49.8	50.4	51.0	51.6	52.2	52.8	53.4	54.0
A(37)	46.42	47.0	47.6	48.1	48.7	49.3	49.9	50.5	51.1	51.7	52.3	52.9	53.4	54.0	54.6
A(38)	47.24	47.8	48.4	48.9	49.5	50.1	50.7	51.2	51.8	52.4	53.0	53.6	54.1	54.7	55.3



A(39)	48.07	48.6 3	49.2 0	49.7 7	50.3 3	50.9 0	51.4 7	52.0 3	52.6 0	53.1 7	53.7 3	54.3 0	54.8 7	55.4 3	56.0 0
A(40)	48.89	49.4 4	50.0 0	50.5 6	51.1 1	51.6 7	52.2 2	52.7 8	53.3 3	53.8 9	54.4 4	55.0 0	55.5 6	56.1 1	56.6 7
A(41)	49.71	50.2 6	50.8 0	51.3 4	51.8 9	52.4 3	52.9 8	53.5 2	54.0 7	54.6 1	55.1 6	55.7 0	56.2 4	56.7 9	57.3 3
A(42)	50.53	51.0 7	51.6 0	52.1 3	52.6 7	53.2 0	53.7 3	54.3 7	54.8 0	55.3 3	55.8 7	56.4 0	56.9 3	57.4 7	58.0 0
A(43)	51.36	51.8 8	52.4 0	52.9 2	53.4 4	53.9 7	54.4 9	55.0 1	55.5 3	56.0 6	56.5 8	57.1 0	57.6 2	58.1 4	58.6 7
A(44)	52.18	52.6 9	53.2 0	53.7 1	54.2 2	54.7 3	55.2 4	55.7 6	56.2 7	56.7 8	57.2 9	57.8 0	58.3 1	58.8 2	59.3 3
A(45)	53.00	53.5 0	54.0 0	54.5 0	55.0 0	55.5 0	56.0 0	56.5 0	57.0 0	57.5 0	58.0 0	58.5 0	59.0 0	59.5 0	60.0 0

READY RECKONER TABLE FOR A + B(90-A)  
90

	B(16) )	B(17) )	B(18) )	B(19) )	B(20) )	B(21) )	B(22) )	B(23) )	B(24) )	B(25) )	B(26) )	B(27) )	B(28) )	B(29) )	B(30) )
A(46)	53.8 2	54.3 1	54.8 0	55.2 9	55.7 8	56.2 7	56.7 4	57.2 3	57.7 2	58.2 1	58.7 0	59.2 9	59.6 8	60.1 7	60.6 6
A(47)	54.6 4	55.1 2	55.6 0	56.0 8	56.5 6	57.0 3	57.5 1	57.9 9	58.4 7	58.9 4	59.4 2	59.9 0	60.3 8	60.8 6	61.3 3
A(48)	55.4 7	55.9 3	56.4 0	56.8 7	57.3 3	57.8 0	58.2 7	58.7 3	59.2 0	59.6 7	60.1 3	60.6 0	61.0 7	61.5 3	62.0 0
A(49)	56.2 9	56.7 4	57.2 0	57.6 6	58.1 1	58.5 7	59.0 2	59.4 8	59.9 3	60.3 9	60.8 4	61.3 0	61.7 6	62.2 1	62.6 7
A(50)	57.1 1	57.5 6	58.0 0	58.4 4	58.8 9	59.3 3	59.7 8	60.2 2	60.6 7	61.1 1	61.5 6	62.0 0	62.4 4	62.8 9	63.3 3
A(51)	57.9 3	58.3 7	58.8 0	59.2 3	59.6 7	60.1 0	60.5 5	60.9 7	61.4 0	61.8 3	62.2 7	62.7 0	63.1 3	63.5 7	64.0 0
A(52)	58.7 6	59.1 8	59.6 0	60.0 2	60.4 4	60.8 7	61.2 9	61.7 1	62.1 3	62.5 6	62.9 8	63.4 0	63.8 2	64.2 6	64.6 7
A(53)	59.5 8	59.9 9	60.4 0	60.8 1	61.2 2	61.6 3	62.0 4	62.4 6	62.8 7	63.2 8	63.6 9	64.1 0	64.5 1	64.9 2	65.3 3
A(54)	60.4 0	60.8 0	61.2 0	61.6 0	62.0 0	62.4 0	62.8 0	63.2 0	63.6 0	64.0 0	64.4 0	64.8 0	65.2 0	65.6 0	66.0 0
A(55)	61.2 2	61.6 1	62.0 0	62.3 9	62.7 8	63.1 7	63.5 6	63.9 4	64.3 3	64.7 2	65.1 1	65.5 0	65.8 9	66.2 8	66.6 7
A(56)	62.0 4	62.4 2	62.8 0	63.1 8	63.5 6	63.9 4	64.3 1	64.6 9	65.0 7	65.4 4	65.8 2	66.2 0	66.5 8	66.9 6	67.3 3
A(57)	62.8 7	63.2 3	63.6 0	63.9 7	64.3 3	64.7 0	65.0 7	65.4 3	65.8 0	66.1 7	66.5 3	66.9 0	67.2 7	67.6 3	68.0 0
A(58)	63.6 9	64.0 4	64.4 0	64.7 6	65.1 1	65.4 7	65.8 2	66.1 8	66.5 3	66.8 9	67.2 4	67.6 0	68.0 6	68.3 1	68.6 7
A(59)	64.5 1	64.8 6	65.2 0	65.5 4	65.8 9	66.2 3	66.5 8	66.9 2	67.2 7	67.6 1	67.9 6	68.3 0	68.6 4	68.9 9	69.3 3
A(60)	65.3 3	65.6 7	66.0 0	66.3 3	66.6 7	67.0 0	67.3 3	67.6 7	68.0 0	68.3 3	68.6 7	69.0 0	69.3 3	69.6 7	70.0 0
A(61)	66.1 6	66.4 8	66.8 0	67.1 2	67.4 4	67.7 9	68.0 1	68.4 3	68.7 6	69.0 8	69.3 0	69.7 2	70.0 4	70.3 7	70.6 0
A(62)	66.9 8	67.2 9	67.6 0	67.9 1	68.2 2	68.5 3	68.8 4	69.1 6	69.4 7	69.7 8	70.0 9	70.4 0	70.7 1	71.0 2	71.3 3
A(63)	67.8 0	68.1 0	68.4 0	68.7 0	69.0 0	69.3 0	69.6 0	69.9 0	70.2 0	70.5 0	70.8 0	71.1 0	71.4 0	71.7 0	72.0 0

# READY RECKONER TABLE FOR A+ B(90-A)

90

	B(31)	B(32)	B(33)	B(34)	B(35)	B(36)	B(37)	B(38)	B(39)	B(40)	B(41)	B(42)	B(43)	B(44)	B(45)
A(1)	31.6 6	32.6 4	33.6 3	34.6 2	35.6 1	36.6 0	37.5 9	38.5 8	39.5 7	40.5 6	41.5 5	42.5 4	43.5 3	44.5 2	45.5 1
A(2)	32.3 1	33.2 9	34.2 7	35.2 6	36.2 5	37.2 4	38.1 3	39.1 2	40.1 1	41.1 0	42.0 9	43.0 8	44.0 7	45.0 6	46.0 5
A(3)	32.9 7	33.9 3	34.9 0	35.8 9	36.8 8	37.8 7	38.7 6	39.7 5	40.7 4	41.6 3	42.6 2	43.6 1	44.5 0	45.5 9	46.5 8
A(4)	33.6 2	34.5 8	35.5 3	36.4 9	37.4 4	38.4 0	39.3 9	40.3 8	41.2 7	42.2 6	43.1 5	44.1 4	45.0 3	46.0 2	47.0 1
A(5)	34.2 8	35.2 2	36.1 7	37.1 1	38.0 6	39.0 4	39.9 3	40.8 2	41.8 1	42.7 0	43.7 9	44.6 8	45.6 7	46.5 6	47.5 5
A(6)	34.9 3	35.8 7	36.8 0	37.7 3	38.6 7	39.6 0	40.5 3	41.7 4	42.4 0	43.3 3	44.2 7	45.2 0	46.1 3	47.0 7	48.0 0
A(7)	35.5 9	36.5 1	37.4 3	38.3 6	39.2 8	40.2 0	41.1 2	42.0 4	42.9 7	43.8 9	44.8 1	45.7 3	46.6 6	47.5 8	48.5 0
A(8)	36.2 4	37.1 6	38.0 7	38.9 9	39.8 8	40.8 1	41.7 2	42.6 3	43.5 4	44.4 5	45.3 6	46.2 7	47.1 8	48.0 9	49.0 0
A(9)	36.9 0	37.8 0	38.7 0	39.6 0	40.5 0	41.4 0	42.3 0	43.2 0	44.1 0	45.0 0	45.9 0	46.8 0	47.7 0	48.6 0	49.5 0
A(10)	37.5 6	38.4 4	39.3 3	40.2 2	41.1 1	42.0 0	42.8 9	43.7 8	44.6 7	45.5 6	46.4 5	47.3 4	48.2 3	49.1 2	50.0 1
A(11)	38.2 1	39.0 9	39.9 7	40.8 4	41.7 2	42.6 0	43.4 8	44.3 6	45.2 3	46.1 1	46.9 9	47.8 7	48.7 4	49.6 2	50.5 0
A(12)	38.8 7	39.7 3	40.6 0	41.4 7	42.3 3	43.2 0	44.0 7	44.9 3	45.8 0	46.6 7	47.5 3	48.4 0	49.2 7	50.1 3	51.0 0
A(13)	39.5 2	40.3 8	41.2 3	42.0 4	43.8 0	44.6 6	45.5 1	46.3 7	47.2 2	48.0 8	48.9 3	49.7 9	50.6 4	51.5 0	52.5 5
A(15)	40.8 3	41.6 7	42.5 0	43.3 3	44.1 7	45.0 0	45.8 3	46.6 7	47.5 0	48.3 3	49.1 7	50.0 0	50.8 3	51.6 7	52.5 0
A(16)	41.4 9	42.3 1	43.1 3	43.9 6	44.7 8	45.6 1	46.4 4	47.2 7	48.0 9	48.8 1	49.7 4	50.5 7	51.3 0	52.1 3	53.0 6
A(17)	42.1 4	42.9 6	43.7 7	44.5 8	45.3 9	46.2 0	47.0 1	47.8 2	48.6 3	49.4 4	50.2 5	51.0 6	51.8 7	52.6 8	53.5 9
A(18)	42.8 0	43.6 0	44.4 0	45.2 0	46.0 0	46.8 0	47.6 0	48.4 0	49.2 0	50.0 0	50.8 0	51.6 0	52.4 0	53.2 0	54.0 0
A(19)	43.4 6	44.2 4	45.0 3	45.8 2	46.6 1	47.4 0	48.1 9	48.9 8	49.7 7	50.5 6	51.3 5	52.1 4	52.9 3	53.7 2	54.5 1
A(20)	44.1 1	44.8 9	45.6 7	46.4 4	47.2 2	48.0 0	48.7 8	49.5 6	50.3 3	51.1 1	51.8 9	52.6 7	53.4 4	54.2 2	55.0 0
A(21)	44.7 7	45.5 3	46.3 0	47.0 7	47.8 3	48.6 0	49.3 7	50.1 3	50.9 0	51.6 7	52.4 3	53.2 0	53.9 7	54.7 3	55.5 0
A(22)	45.4 2	46.1 8	46.9 3	47.6 9	48.4 4	49.2 0	49.9 6	50.7 1	51.4 7	52.2 2	52.9 8	53.7 3	54.4 9	55.2 4	56.0 0
A(23)	46.0 8	46.8 2	47.5 7	48.3 1	49.0 6	49.8 0	50.5 4	51.2 9	52.0 3	52.7 8	53.5 2	54.2 7	55.0 1	55.7 6	56.5 0
A(24)	46.7 3	47.4 7	48.2 0	48.9 3	49.6 7	50.4 0	51.1 3	51.8 7	52.6 0	53.3 3	54.0 7	54.8 0	55.5 3	56.2 7	57.0 0
A(25)	47.3 9	48.1 1	48.8 3	49.5 6	50.2 8	51.0 0	51.7 2	52.4 4	53.1 7	53.8 9	54.6 1	55.3 3	56.0 6	56.7 8	57.5 0
A(26)	48.0 4	48.7 6	49.4 7	50.1 8	50.8 9	51.6 0	52.3 1	53.0 2	53.7 3	54.4 4	55.1 5	55.8 6	56.5 7	57.2 8	58.0 0
A(27)	48.7 0	49.4 0	50.1 0	50.8 0	51.5 0	52.2 0	52.9 0	53.5 0	54.3 0	55.0 0	55.7 0	56.4 0	57.1 0	57.8 0	58.5 0
A(28)	49.3 6	50.0 4	50.7 3	51.4 2	52.1 1	52.8 0	53.4 9	54.1 8	54.8 7	55.5 6	56.2 5	56.9 4	57.6 3	58.3 2	59.0 1
A(29)	50.0 1	50.6 0	51.3 7	52.0 4	52.7 2	53.4 0	54.0 8	54.7 6	55.4 3	56.1 1	56.7 9	57.4 7	58.1 4	58.8 2	59.5 0
A(30)	50.6 7	51.3 3	52.0 0	52.6 7	53.3 3	54.0 0	54.6 7	55.3 3	56.0 0	56.6 7	57.3 3	58.0 0	58.6 7	59.3 3	60.0 0
A(31)	51.3 2	51.9 8	52.6 3	53.2 9	53.9 4	54.6 0	55.2 6	55.9 1	56.5 7	57.2 2	57.8 8	58.5 3	59.1 9	59.8 4	60.5 0
A(32)	51.9 8	52.6 2	53.2 7	53.9 1	54.5 6	55.2 0	55.8 4	56.4 9	57.1 3	57.7 8	58.4 2	59.0 7	59.7 1	60.3 6	61.0 0
A(33)	52.6 3	53.2 7	53.9 0	54.5 3	55.1 7	55.8 0	56.4 3	57.0 7	57.7 0	58.3 3	58.9 7	59.6 0	60.2 3	60.8 7	61.5 0
A(34)	53.2 9	53.9 1	54.5 3	55.1 6	55.7 8	56.3 0	57.0 2	57.6 4	58.2 7	58.8 9	59.4 1	60.0 3	60.7 6	61.3 8	62.0 0
A(35)	53.9 4	54.5 6	55.1 7	55.7 8	56.3 9	57.0 0	57.6 1	58.2 2	58.8 3	59.4 4	60.0 5	60.6 6	61.2 7	61.8 8	62.5 0
A(36)	54.6 0	55.2 2	55.8 3	56.4 4	57.0 5	57.6 6	58.2 7	58.8 8	59.4 9	60.0 0	60.6 1	61.2 2	61.8 3	62.4 4	63.0 5

[illegible]

# READY RECKONER TABLE FOR A+B

(90-A)  
90

	B(31)	B(32)	B(33)	B(34)	B(35)	B(36)	B(37)	B(38)	B(39)	B(40)	B(41)	B(42)	B(43)	B(44)	B(45)
A(46)	61.1 6	61.6 4	62.1 3	62.6 2	63.1 0	63.6 0	64.0 9	64.5 8	65.0 7	65.5 6	66.0 4	66.5 3	67.0 2	67.5 1	68.0 0
A(47)	61.8 1	62.2 9	62.7 7	63.2 4	63.7 2	64.2 0	64.6 8	65.1 6	65.6 3	66.1 1	66.6 9	67.0 7	67.5 4	68.0 2	68.5 0
A(48)	62.4 7	62.9 3	63.4 0	63.8 7	64.3 3	64.8 0	65.2 7	65.7 3	66.2 0	66.6 7	67.1 3	67.6 0	68.0 7	68.5 3	69.0 0
A(49)	63.1 2	63.5 8	64.0 3	64.4 9	64.9 4	65.4 0	65.8 6	66.3 3	66.7 7	67.2 2	67.6 8	68.1 3	68.5 9	69.0 4	69.5 0
A(50)	63.7 8	64.2 2	64.6 7	65.1 1	65.5 6	66.0 0	66.4 4	66.8 9	67.3 3	67.7 8	68.2 2	68.6 7	69.1 1	69.5 6	70.0 0
A(51)	64.4 3	64.8 7	65.3 0	65.7 3	66.1 7	66.6 0	67.0 3	67.4 7	67.9 0	68.3 3	68.7 7	69.2 0	69.6 3	70.0 7	70.5 0
A(52)	65.0 9	65.5 1	65.9 3	66.3 3	66.7 8	67.2 0	67.6 2	68.4 0	68.4 7	68.8 9	69.3 1	69.7 3	70.1 6	70.5 8	71.0 0
A(53)	65.7 4	66.1 6	66.5 7	66.9 8	67.3 9	67.8 0	68.2 1	68.6 2	69.0 3	69.4 4	69.8 6	70.2 7	70.6 8	71.0 9	71.5 0
A(54)	66.4 0	66.8 0	67.2 0	67.6 0	68.0 0	68.4 0	68.8 0	68.2 0	69.6 0	70.0 0	70.4 0	70.8 0	71.2 0	71.6 0	72.0 0
A(55)	67.0 6	67.4 4	67.8 3	68.2 2	68.6 1	69.0 0	69.3 9	69.7 8	70.1 7	70.5 6	70.9 4	71.3 3	71.7 2	72.1 1	72.5 0
A(56)	67.7 1	68.0 9	68.4 7	68.8 4	69.2 2	69.6 0	69.9 8	70.3 6	70.7 3	71.1 1	71.4 9	71.8 7	72.2 4	72.6 2	73.0 0
A(57)	68.3 7	68.7 3	69.1 0	69.4 7	69.8 3	70.2 0	70.5 7	70.9 3	71.3 0	71.6 7	72.0 3	72.4 0	72.7 7	73.1 3	73.5 0
A(58)	69.0 2	69.3 8	69.7 9	70.0 9	70.4 4	70.8 0	71.1 6	71.5 1	71.8 7	72.2 2	72.5 8	72.9 3	73.2 9	73.6 4	74.0 0
A(59)	69.6 8	70.0 2	70.3 7	70.7 1	71.0 6	71.4 0	71.7 4	72.0 9	72.4 3	72.7 8	73.1 2	73.4 7	73.8 1	74.1 6	74.5 0
A(60)	70.3 3	70.6 7	71.0 3	71.3 7	71.5 0	72.0 3	72.3 7	72.6 0	73.0 3	73.3 7	73.6 0	74.0 3	74.3 7	74.6 0	75.0 0
A(61)	70.9 9	71.3 1	71.6 3	71.9 6	72.2 8	72.6 0	72.9 2	73.2 4	73.5 7	73.8 9	74.2 1	74.5 3	74.8 6	75.1 8	75.5 0
A(62)	71.6 4	71.9 6	72.2 7	72.5 8	72.8 9	73.2 0	73.5 1	73.8 2	74.1 3	74.4 4	74.7 6	75.0 7	75.3 8	75.6 9	76.0 0
A(63)	72.3 0	72.6 0	72.9 0	73.2 0	73.5 0	73.8 0	74.1 0	74.4 0	74.7 0	75.0 0	75.3 0	75.6 0	75.9 0	76.2 0	76.5 0
A(64)	72.9 6	73.2 4	73.5 3	73.8 2	74.1 1	74.4 0	74.6 9	74.9 8	75.2 7	75.5 6	75.8 4	76.1 3	76.4 2	76.7 1	77.0 0
A(65)	73.6 1	73.8 9	74.1 7	74.4 4	74.7 2	75.0 0	75.2 8	75.5 6	75.8 3	76.1 1	76.3 9	76.6 7	76.9 4	77.2 2	77.5 0
A(66)	74.2 7	74.5 3	74.8 0	75.0 7	75.3 3	75.6 0	75.8 7	76.1 3	76.4 0	76.6 7	76.9 3	77.2 0	77.4 7	77.7 3	78.0 0
A(67)	74.9 2	75.1 8	75.4 3	75.6 9	75.9 4	76.2 0	76.4 6	76.7 1	76.9 7	77.2 2	77.4 8	77.7 3	77.9 9	78.2 4	78.5 0
A(68)	75.5 8	75.8 2	76.0 7	76.3 1	76.5 6	76.8 0	77.0 4	77.2 9	77.5 3	77.7 8	78.0 2	78.2 7	78.5 1	78.7 6	79.0 0
A(69)	76.2 3	76.4 7	76.7 0	76.9 3	77.1 7	77.4 0	77.6 3	77.8 7	78.1 0	78.3 3	78.5 7	78.8 0	79.0 3	79.2 7	79.5 0
A(70)	76.8 9	77.1 1	77.3 3	77.5 6	77.7 8	78.0 0	78.2 2	78.4 4	78.6 7	78.8 9	79.1 1	79.3 3	79.5 6	79.7 8	80.0 0
A(71)	77.5 4	77.7 6	77.9 7	78.1 8	78.3 9	78.6 0	78.8 1	79.0 2	79.2 3	79.4 4	79.6 6	79.8 7	80.0 8	80.2 9	80.5 0
A(72)	78.2 0	78.4 0	78.6 0	78.8 0	79.0 0	79.2 0	79.4 0	79.6 0	79.8 0	80.0 0	80.2 0	80.4 0	80.6 0	80.8 0	81.0 0
A(73)	78.8 6	79.0 4	79.2 2	79.4 1	79.6 0	79.8 0	79.9 9	80.1 8	80.3 7	80.5 6	80.7 4	80.9 3	81.1 2	81.3 1	81.5 0
A(74)	79.5 1	79.6 9	79.8 7	80.0 4	80.2 2	80.4 0	80.5 8	80.7 6	80.9 3	81.1 1	81.2 9	81.4 7	81.6 4	81.8 2	82.0 0
A(75)	80.1 7	80.3 3	80.5 0	80.6 7	80.8 3	81.0 0	81.1 7	81.3 3	81.5 0	81.6 7	81.8 3	82.0 0	82.1 7	82.3 3	82.5 0
A(76)	80.8 2	80.9 8	81.1 3	81.2 9	81.4 4	81.6 0	81.7 6	81.9 1	82.0 7	82.2 2	82.3 8	82.5 3	82.6 9	82.8 4	83.0 0
A(77)	81.4 8	81.6 2	81.7 7	81.9 1	82.0 6	82.2 0	82.3 4	82.4 9	82.6 3	82.7 8	82.9 2	83.0 7	83.2 1	83.3 6	83.5 0
A(78)	82.1 3	82.2 7	82.4 0	82.5 3	82.6 7	82.8 0	82.9 3	83.0 7	83.2 0	83.3 3	83.4 7	83.6 0	83.7 3	83.8 7	84.0 0
A(79)	82.7 9	82.9 1	83.0 3	83.1 6	83.2 8	83.4 0	83.5 2	83.6 4	83.7 7	83.8 9	84.0 1	84.1 3	84.2 6	84.3 8	84.5 0
A(80)	83.4 4	83.5 6	83.6 8	83.7 9	83.8 0	84.0 0	84.1 1	84.2 2	84.3 3	84.4 4	84.5 5	84.6 6	84.7 7	84.8 8	85.0 0
A(81)	84.1 0	84.2 0	84.3 1	84.4 0	84.5 0	84.6 0	84.7 0	84.8 0	84.9 0	85.0 0	85.1 0	85.2 0	85.3 0	85.4 0	85.5 0
A(82)	84.7 6	84.8 4	84.9 3	85.0 2	85.1 1	85.2 0	85.2 9	85.3 8	85.4 7	85.5 6	85.6 4	85.7 3	85.8 2	85.9 1	86.0 0
A(83)	85.4 1	85.4 9	85.5 7	85.6 4	85.7 2	85.8 0	85.8 8	85.9 6	87.0 3	86.1 1	86.1 9	86.2 7	86.3 4	86.4 2	86.5 0

A(84)	86.0 7	86.1 3	86.2 0	86.2 7	86.5 3	86.4 0	86.4 7	86.5 3	87.6 0	86.6 7	86.7 3	86.8 0	86.8 7	86.9 3	87.0 0
A(85)	86.7 2	86.7 8	86.8 3	86.8 9	87.9 4	87.0 0	87.0 6	87.1 1	88.1 7	87.2 2	87.2 8	87.3 3	87.3 9	87.4 4	87.5 0
A(86)	87.3 8	87.4 2	87.4 7	87.5 1	88.5 6	87.6 0	87.6 4	87.6 9	88.7 3	87.7 8	87.8 2	87.8 7	87.9 1	87.9 6	88.0 0
A(87)	88.0 3	88.0 7	88.1 0	88.1 3	88.1 7	88.2 0	88.2 3	88.2 7	88.3 0	88.3 3	88.3 7	88.4 0	88.4 3	88.4 7	88.5 0
A(88)	88.6 9	88.7 1	88.7 3	88.7 6	89.7 8	88.8 0	88.8 2	88.8 4	88.8 7	88.8 9	88.9 1	88.9 3	88.9 6	88.9 8	89.0 0
A(89)	89.3 4	89.3 6	89.3 7	89.3 8	89.3 9	89.4 0	89.4 1	89.2 4	89.4 3	89.4 4	89.4 6	89.4 4	89.4 6	89.4 9	89.5 0
A(90)	90.0 0	90.0 0	90.0 0	90.0 0	90.0 0	90.0 0	90.0 0	90.0 0	90.0 0	90.0 0	90.0 0	90.0 0	90.0 0	90.0 0	90.0 0

# READY RECKONER TABLE FOR A + B(90-A)

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	B(46)	B(47)	B(48)	B(49)	B(50)	B(51)	B(52)	B(53)	B(54)	B(55)	B(56)	B(57)	B(58)	B(59)	B(60)
A(1)	46.49	47.48	48.47	49.46	50.44	51.43	52.42	53.41	54.40	55.39	56.38	57.37	58.36	59.34	60.33
A(2)	46.98	47.96	48.93	49.91	50.89	51.87	52.84	53.82	54.80	55.78	56.76	57.73	58.71	59.69	60.67
A(3)	47.47	48.43	49.40	50.37	51.33	52.30	53.27	54.23	55.20	56.17	57.12	58.10	59.07	60.03	61.00
A(4)	47.96	48.91	49.87	50.82	51.78	52.73	53.69	54.64	55.60	56.56	57.51	58.47	59.42	60.38	61.33
A(5)	48.44	49.39	50.33	51.28	52.22	53.17	54.11	55.06	56.00	57.94	58.89	59.83	60.78	61.72	62.67
A(6)	48.93	49.87	50.80	51.73	52.67	53.60	54.53	55.47	56.40	57.33	58.27	59.20	60.13	61.07	62.00
A(7)	49.42	50.34	51.27	52.19	53.11	54.03	54.96	55.88	56.80	57.72	58.64	59.57	60.49	61.41	62.33
A(8)	49.91	50.82	51.73	52.64	53.56	54.47	55.38	56.20	57.11	58.02	58.93	59.84	60.76	61.67	62.58
A(9)	50.40	51.30	52.20	53.10	54.00	54.90	55.80	56.70	57.60	58.50	59.40	60.30	61.20	62.10	63.00
A(10)	50.89	51.78	52.67	53.56	54.44	55.33	56.22	57.11	58.00	58.89	59.78	60.67	61.56	62.44	63.33
A(11)	51.38	52.26	53.13	54.01	54.83	55.77	56.64	57.52	58.40	59.28	60.16	61.03	61.91	62.79	63.67
A(12)	51.87	52.73	53.60	54.47	55.33	56.20	57.07	57.93	58.80	59.67	60.53	61.40	62.27	63.13	64.00
A(13)	52.36	53.21	54.07	54.92	55.78	56.63	57.49	58.34	59.20	60.06	60.91	61.77	62.62	63.48	64.33
A(14)	52.84	53.69	54.53	55.38	56.22	57.07	57.91	58.76	59.60	60.44	61.29	62.13	62.98	63.82	64.67
A(15)	53.33	54.17	55.00	55.83	56.67	57.50	58.33	59.17	60.00	60.83	61.67	62.50	63.33	64.17	65.00
A(16)	53.82	54.65	55.48	56.31	57.14	57.97	58.80	59.63	60.46	61.29	62.12	62.95	63.78	64.61	65.44

16)	82	64	47	29	11	93	76	58	40	22	04	87	69	51	33
A(	54.	55.	55.	56.	57.	58.	59.	59.	60.	61.	62.	63.	64.	64.	65.
17)	31	12	93	74	56	37	18	99	80	61	42	23	04	86	67
A(	54.	55.	56.	57.	58.	58.	59.	60.	61.	62.	62.	63.	64.	65.	66.
18)	80	60	40	20	00	80	60	40	20	00	80	60	40	20	00
A(	55.	56.	56.	57.	58.	59.	60.	60.	61.	62.	63.	63.	64.	65.	66.
19)	29	08	87	66	44	23	02	81	60	39	18	97	54	54	33
A(	55.	56.	57.	58.	58.	59.	60.	61.	62.	62.	63.	64.	65.	65.	66.
20)	78	56	33	11	89	67	44	22	00	78	56	33	11	89	67
A(	56.	57.	57.	58.	59.	60.	60.	61.	62.	63.	63.	64.	65.	66.	67.
21)	27	03	80	57	33	10	87	63	40	17	93	70	47	23	00
A(	56.	57.	58.	59.	59.	60.	61.	62.	62.	63.	64.	65.	65.	66.	67.
22)	76	51	27	02	78	53	29	04	80	56	31	07	82	58	33
A(	57.	57.	58.	59.	60.	60.	61.	62.	63.	63.	64.	65.	66.	66.	67.
23)	24	99	73	48	22	97	71	46	20	94	69	43	18	92	67
A(	57.	58.	59.	59.	60.	61.	62.	62.	63.	64.	65.	65.	66.	67.	68.
24)	73	47	20	93	67	40	13	87	60	33	07	80	53	27	00
A(	58.	58.	59.	60.	61.	61.	62.	63.	64.	64.	65.	66.	66.	67.	68.
25)	22	94	67	39	11	83	56	28	00	72	44	17	89	61	33
A(	58.	59.	60.	60.	61.	62.	62.	63.	64.	65.	65.	66.	67.	67.	68.
26)	71	42	13	84	56	27	98	69	40	11	82	53	24	96	67
A(	59.	59.	60.	61.	62.	62.	63.	64.	64.	65.	66.	66.	67.	68.	69.
27)	20	90	60	30	00	70	40	10	80	50	20	90	60	30	00
A(	59.	60.	61.	61.	62.	63.	63.	64.	65.	65.	66.	67.	67.	68.	69.
28)	69	38	07	76	44	13	82	51	20	89	58	27	96	64	33
A(	60.	60.	61.	62.	62.	63.	64.	64.	65.	66.	66.	67.	68.	68.	69.
29)	18	86	53	21	89	57	24	92	60	28	96	63	31	99	67
A(	60.	61.	62.	62.	63.	64.	64.	65.	66.	66.	67.	68.	68.	69.	70.
30)	67	33	00	67	33	00	67	33	00	67	33	00	67	33	00
A(	61.	61.	62.	63.	63.	64.	65.	65.	66.	67.	67.	68.	69.	69.	70.
31)	16	81	47	12	78	43	09	74	40	06	71	37	02	68	33
A(	61.	62.	62.	63.	64.	64.	65.	66.	66.	67.	68.	68.	69.	70.	70.
32)	64	29	93	58	22	87	51	16	80	44	09	73	38	02	67
A(	62.	62.	63.	64.	64.	65.	65.	66.	67.	67.	68.	69.	69.	70.	71.
33)	13	77	40	03	67	30	93	57	20	83	47	10	73	37	00
A(	62.	63.	63.	64.	65.	65.	66.	66.	67.	68.	68.	69.	70.	70.	71.
34)	62	24	87	49	11	73	36	98	60	22	84	47	09	71	33
A(	63.	63.	64.	64.	65.	66.	66.	67.	68.	68.	69.	69.	70.	71.	71.
35)	11	72	33	94	56	17	78	39	00	61	22	83	44	06	67
A(	63.	64.	64.	65.	66.	66.	67.	67.	68.	68.	69.	70.	70.	71.	72.
36)	90	20	80	40	00	60	20	80	00	61	22	20	80	40	00
A(	64.	64.	65.	65.	66.	67.	67.	68.	68.	69.	69.	70.	71.	71.	72.
37)	09	68	27	86	44	03	62	04	40	00	60	57	16	74	33
A(	64.	65.	65.	66.	66.	67.	68.	68.	68.	69.	69.	70.	71.	72.	72.
38)	58	16	73	31	89	47	04	47	80	39	98	93	51	09	33
A(	65.	65.	66.	66.	67.	67.	68.	69.	69.	70.	70.	71.	71.	72.	73.
39)	07	63	20	27	33	90	47	03	60	17	73	30	87	43	00
A(	65.	66.	66.	67.	67.	68.	68.	69.	70.	70.	71.	71.	72.	72.	73.
40)	56	11	67	22	78	33	89	44	00	56	11	67	22	78	33

A(41)	66.04	66.59	67.13	67.68	68.22	68.77	69.31	69.86	70.40	70.94	71.49	72.03	72.58	73.12	73.67
A(42)	66.53	67.07	67.60	68.13	68.67	69.20	69.73	70.27	70.80	71.33	71.87	72.40	72.93	73.47	74.00
A(43)	67.02	67.54	68.07	68.59	69.11	69.63	70.16	70.68	71.20	71.72	72.24	72.77	73.29	73.81	74.33
A(44)	67.51	68.02	68.53	69.04	69.56	70.07	70.58	71.09	71.60	72.11	72.62	73.13	73.64	74.16	74.67
A(45)	68.00	68.50	69.00	69.50	70.00	70.50	71.00	71.50	72.00	72.50	73.00	73.50	74.00	74.50	75.00

# READY RECKONER TABLE FOR A + B(90-A)

90

	B(46)	B(47)	B(48)	B(49)	B(50)	B(51)	B(52)	B(53)	B(54)	B(55)	B(56)	B(57)	B(58)	B(59)	B(60)
A(46)	68.49	68.98	69.47	69.96	70.44	70.93	71.42	71.91	72.40	72.89	73.38	73.87	74.36	74.84	75.33
A(47)	68.98	69.46	69.93	70.41	70.89	71.37	71.84	72.32	72.80	73.28	73.76	74.23	74.71	75.19	75.67
A(48)	69.47	69.93	70.40	70.87	71.33	71.80	72.27	72.73	73.20	73.67	74.13	74.60	75.07	75.53	76.00
A(49)	69.96	70.41	70.87	71.32	71.78	72.23	72.69	73.14	73.60	74.06	74.51	74.97	75.42	75.88	76.33
A(50)	70.44	70.89	71.33	71.78	72.22	72.67	73.11	73.56	74.00	74.44	74.89	75.33	75.78	76.22	76.67
A(51)	70.93	71.37	71.80	72.23	72.67	73.10	73.53	73.97	74.40	74.83	75.27	75.70	76.13	76.57	77.00
A(52)	71.42	71.84	72.27	72.69	73.11	73.53	73.96	74.38	74.80	75.22	75.64	76.07	76.49	76.91	77.33
A(53)	71.91	72.32	72.73	73.14	73.56	73.97	74.38	74.79	75.20	75.61	76.02	76.43	76.84	77.26	77.67
A(54)	72.40	72.80	73.20	73.60	74.00	74.40	74.80	75.20	75.60	76.00	76.40	76.80	77.20	77.60	78.00
A(55)	72.89	73.28	73.67	74.06	74.44	74.83	75.22	75.61	76.00	76.39	76.78	77.17	77.56	77.94	78.33
A(56)	73.38	73.76	74.13	74.51	74.89	75.27	75.64	76.02	76.40	76.78	77.14	77.53	77.91	78.29	78.67
A(57)	73.87	74.23	74.60	74.97	75.33	75.70	76.07	76.43	76.80	77.17	77.53	77.90	78.27	78.63	79.00
A(58)	74.36	74.71	75.07	75.42	75.78	76.13	76.49	76.84	77.20	77.56	77.91	78.27	78.62	78.98	79.33
A(59)	74.84	75.19	75.53	75.88	76.22	76.57	76.91	77.26	77.60	77.94	78.29	78.63	78.98	79.32	79.67
A(60)	75.33	75.67	76.00	76.33	76.67	77.00	77.33	77.67	78.00	78.33	78.67	79.00	79.33	79.67	80.00

A(61)	75.82	76.14	76.47	76.79	77.11	77.43	77.76	78.08	78.40	78.72	79.04	79.37	79.69	80.01	80.33
A(62)	76.31	76.62	76.93	77.24	77.56	77.87	78.18	78.40	78.80	79.11	79.42	79.73	80.04	80.36	80.67
A(63)	76.80	77.10	77.40	77.70	78.00	78.30	78.60	79.00	79.20	79.50	79.80	80.10	80.40	80.70	81.00
A(64)	77.29	77.58	77.87	78.16	78.44	78.73	79.02	79.31	79.60	79.89	80.18	80.47	80.76	81.04	81.33
A(65)	77.78	78.06	78.33	78.61	78.89	79.17	79.44	79.72	80.00	80.28	80.56	80.83	81.11	81.39	81.67
A(66)	78.27	78.53	78.80	79.07	79.33	79.60	79.87	80.13	80.40	80.67	80.93	81.20	81.47	81.73	82.00
A(67)	78.76	79.01	79.27	79.52	79.78	80.03	80.29	80.54	80.80	81.06	81.31	81.57	81.82	82.08	82.33
A(68)	79.24	79.49	79.73	79.98	80.22	80.47	80.71	80.96	81.20	81.44	81.69	81.93	82.18	82.42	82.67
A(69)	79.73	79.97	80.20	80.43	80.67	80.90	81.13	81.37	81.60	81.83	82.07	82.30	82.53	82.77	83.00
A(70)	80.22	80.44	80.67	80.89	81.11	81.33	81.56	81.78	82.00	82.22	82.44	82.67	82.89	83.11	83.33
A(71)	80.71	80.92	81.13	81.34	81.56	81.77	81.98	82.19	82.40	82.61	82.82	83.03	83.24	83.46	83.67
A(72)	81.20	81.40	81.60	81.80	82.00	82.20	82.40	82.60	82.80	83.00	83.20	83.40	83.60	83.80	84.00
A(73)	81.69	81.88	82.07	82.26	82.44	82.63	82.82	83.01	83.20	83.39	83.58	83.77	83.96	84.14	84.33
A(74)	82.18	82.36	82.53	82.71	82.89	83.07	83.24	83.42	83.60	83.78	83.96	84.13	84.31	84.49	84.67
A(75)	82.67	82.83	83.00	83.17	83.33	83.50	83.67	83.83	84.00	84.17	84.33	84.50	84.67	84.83	85.00
A(76)	83.16	83.31	83.47	83.62	83.78	83.93	84.09	84.24	84.40	84.56	84.71	84.87	85.02	85.18	85.33
A(77)	83.64	83.79	83.93	84.08	84.22	84.37	84.51	84.66	84.80	84.94	85.09	85.23	85.38	85.52	85.67
A(78)	84.13	84.27	84.40	84.53	84.67	84.80	84.93	85.07	85.20	85.33	85.47	85.60	85.73	85.87	86.00
A(79)	84.62	84.74	84.87	84.99	85.11	85.23	85.36	85.48	85.60	85.72	85.84	85.97	86.09	86.21	86.33
A(80)	85.11	85.22	85.33	85.44	85.56	85.67	85.78	85.89	86.00	86.11	86.22	86.33	86.44	86.56	86.67
A(81)	85.60	85.70	85.80	85.90	86.00	86.10	86.20	86.30	86.40	86.50	86.60	86.70	86.80	86.90	87.00
A(82)	86.09	86.18	86.27	86.36	86.44	86.53	86.62	86.71	86.80	86.89	86.98	87.07	87.16	87.24	87.33
A(83)	86.58	86.66	86.73	86.81	86.89	86.97	87.04	87.12	87.20	87.28	87.36	87.43	87.51	87.59	87.67
A(84)	87.07	87.13	87.20	87.27	87.33	87.40	87.47	87.53	87.60	87.67	87.73	87.80	87.87	87.93	88.00
A(85)	87.58	87.67	87.76	87.85	87.94	88.03	88.12	88.21	88.30	88.39	88.48	88.57	88.66	88.75	88.84



85)	56	61	67	72	78	83	89	94	00	06	11	17	22	28	33
A(	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.
86)	04	09	13	18	22	27	31	36	40	44	49	53	58	62	67
A(	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	89.
87)	53	57	60	63	67	70	73	77	80	83	87	90	93	97	00
A(	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.
88)	02	04	07	09	11	13	16	18	20	22	24	27	29	31	33
A(	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.
89)	51	52	53	54	56	57	58	59	60	61	62	63	64	66	67
A(	90.	90.	90.	90.	90.	90.	90.	90.	90.	90.	90.	90.	90.	90.	90.
90)	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

# READY RECKONER TABLE FOR

A+B (90-A)

90

	B(	B(	B(	B(	B(	B(	B(	B(	B(	B(	B(	B(	B(	B(	B(
	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75
	)	)	)	)	)	)	)	)	)	)	)	)	)	)	)
A(	61.	62.	63.	64.	65.	66.	67.	68.	69.	70.	71.	72.	73.	74.	75.
1)	32	31	30	29	28	27	26	24	23	22	21	20	19	18	17
A(	61.	62.	63.	64.	65.	66.	67.	68.	69.	70.	71.	72.	73.	74.	75.
2)	64	62	60	58	56	53	51	49	47	44	42	40	38	36	33
A(	61.	62.	63.	64.	65.	66.	67.	68.	69.	70.	71.	72.	73.	74.	75.
3)	97	93	90	87	83	80	77	73	70	67	63	60	57	53	50
A(	62.	63.	64.	65.	66.	67.	68.	68.	69.	70.	71.	72.	73.	74.	75.
4)	29	24	20	16	11	07	02	98	93	89	84	80	76	71	67
A(	62.	63.	64.	65.	66.	67.	68.	69.	70.	71.	72.	73.	73.	74.	75.
5)	61	56	50	44	39	33	28	22	17	11	06	00	94	89	83
A(	62.	63.	64.	65.	66.	67.	68.	69.	70.	71.	72.	73.	74.	75.	76.
6)	93	87	80	73	67	60	53	47	40	33	27	20	13	07	00
A(	63.	64.	65.	66.	66.	67.	68.	69.	70.	71.	72.	73.	74.	75.	76.
7)	26	18	10	02	94	87	79	71	63	56	48	40	32	24	17
A(	63.	64.	65.	66.	67.	68.	69.	69.	70.	71.	72.	73.	74.	75.	76.
8)	58	49	40	31	22	13	04	96	87	78	69	60	51	42	33
A(	63.	64.	65.	66.	67.	68.	69.	70.	72.	72.	72.	73.	74.	75.	76.
9)	90	80	70	60	50	40	30	20	10	00	90	80	70	60	50
A(	64.	65.	66.	66.	67.	68.	69.	70.	71.	72.	73.	74.	74.	75.	76.
10)	22	11	00	89	78	67	56	44	33	22	11	00	89	78	67
A(	64.	65.	66.	67.	68.	68.	69.	70.	71.	72.	73.	74.	75.	75.	76.
11)	54	42	30	18	06	93	81	69	57	44	32	20	08	96	83
A(	64.	65.	66.	67.	68.	69.	70.	70.	71.	72.	73.	74.	75.	76.	77.
12)	87	73	60	47	33	20	07	93	80	67	53	40	27	13	17
A(	65.	66.	66.	67.	68.	69.	70.	71.	72.	72.	73.	74.	75.	76.	77.
13)	19	04	90	78	61	47	32	18	03	89	74	60	46	49	33

A(14)	65.51	66.36	67.20	68.04	68.89	69.73	70.58	71.42	72.27	73.11	73.96	74.80	75.63	76.47	77.30
A(15)	65.83	66.67	67.50	68.33	69.17	70.00	70.83	71.67	72.50	73.33	74.17	75.00	75.83	76.67	77.50
A(16)	66.16	66.98	67.80	68.62	69.44	70.27	71.09	71.91	72.73	73.56	74.38	75.20	76.02	76.84	77.67
A(17)	66.68	67.29	68.10	68.91	69.72	70.53	71.34	72.16	72.97	73.78	74.59	75.40	76.21	77.02	77.83
A(18)	66.80	67.60	68.40	69.20	70.00	70.80	71.60	72.40	73.20	74.00	74.80	75.60	76.40	77.20	78.00
A(19)	67.12	67.91	68.70	69.49	70.28	71.07	71.86	72.64	73.43	74.22	75.01	75.80	76.59	77.38	78.17
A(20)	67.44	68.22	69.00	69.78	70.56	71.33	72.11	72.89	73.67	74.44	75.22	76.00	76.78	77.56	78.33
A(21)	67.77	68.53	69.30	70.07	70.80	71.60	72.37	73.13	73.90	74.67	75.43	76.20	76.97	77.73	78.50
A(22)	68.09	68.84	69.60	70.36	71.11	71.87	72.62	73.38	74.13	74.89	75.64	76.40	77.16	77.91	78.67
A(23)	68.14	69.10	69.90	70.64	71.39	72.13	72.88	73.62	74.37	75.11	75.86	76.60	77.34	78.09	78.83
A(24)	68.73	69.47	70.20	70.93	71.67	72.40	73.13	73.87	74.60	75.33	76.07	76.80	77.53	78.27	79.00
A(25)	69.06	69.78	70.50	71.22	71.94	72.67	73.39	74.11	74.83	75.56	76.28	77.00	77.72	78.44	79.17
A(26)	69.38	70.00	70.80	71.51	72.22	72.93	73.64	74.36	75.07	75.78	76.49	77.20	77.91	78.62	79.33
A(27)	69.07	75.40	71.10	71.80	72.50	73.20	73.90	74.60	75.30	76.00	76.70	77.40	78.10	78.80	79.50
A(28)	70.02	70.71	71.40	72.09	72.78	73.47	74.16	74.84	75.53	76.22	76.91	77.60	78.29	78.98	79.67
A(29)	70.34	71.02	71.70	72.38	73.06	73.73	74.41	75.09	75.77	76.44	77.12	77.80	78.48	79.16	79.83
A(30)	70.67	71.33	72.00	72.67	73.33	74.00	74.67	75.33	76.00	76.67	77.33	78.00	78.67	79.33	80.00
A(31)	70.99	71.64	72.30	72.96	73.61	74.27	74.92	75.58	76.23	76.89	77.54	78.20	78.86	79.51	80.17
A(32)	71.31	71.96	72.60	73.24	73.89	74.53	75.18	75.82	76.47	77.11	77.76	78.40	79.04	79.69	80.33
A(33)	71.69	72.27	72.90	73.53	74.17	74.80	75.43	76.07	76.70	77.33	77.97	78.60	79.23	79.87	80.50
A(34)	71.96	72.58	73.20	73.82	74.44	75.07	75.69	76.31	76.93	77.56	78.18	78.80	79.42	80.04	80.67
A(35)	72.28	72.89	73.50	74.11	74.72	75.33	75.94	76.56	77.17	77.78	78.39	79.00	79.61	80.22	80.83
A(36)	72.60	73.20	73.80	74.40	75.00	75.60	76.20	76.80	77.40	78.00	78.60	79.20	79.80	80.40	81.00
A(37)	72.92	73.51	74.10	74.69	75.28	75.87	76.46	77.04	77.63	78.22	78.81	79.40	80.00	80.58	81.17
A(38)	73.23	73.83	74.43	75.03	75.63	76.23	76.83	77.43	78.03	78.63	79.23	79.83	80.43	81.03	81.63

76)	49	64	80	96	11	27	42	58	73	89	04	20	36	51	67
A(	85.	85.	86.	86.	86.	86.	86.	86.	86.	87.	87.	87.	87.	87.	87.
77)	81	96	10	24	39	53	68	82	97	11	26	04	54	69	83
A(	86.	86.	86.	86.	86.	86.	86.	87.	87.	87.	87.	87.	87.	87.	88.
78)	13	27	40	53	67	80	93	07	20	33	47	60	43	87	00
A(	86.	86.	86.	86.	86.	87.	87.	87.	87.	87.	87.	87.	87.	88.	88.
79)	16	58	70	82	94	07	19	31	73	56	68	80	92	04	17
A(	86.	86.	87.	87.	87.	87.	87.	87.	87.	87.	87.	88.	88.	88.	88.
80)	78	89	00	11	22	33	44	56	67	78	89	00	11	22	33
A(	87.	87.	87.	87.	87.	87.	87.	87.	87.	88.	88.	88.	88.	88.	88.
81)	10	20	30	40	50	60	70	80	90	00	10	20	30	40	50
A(	87.	87.	87.	87.	87.	87.	87.	88.	88.	88.	88.	88.	88.	88.	88.
82)	42	51	60	69	78	87	96	04	13	22	31	40	49	58	67
A(	87.	87.	87.	87.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.
83)	74	82	90	98	06	13	21	29	37	44	52	60	68	76	83
A(	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	89.
84)	07	13	20	27	33	40	47	53	60	67	73	80	87	93	00
A(	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	88.	89.	89.	89.	89.
85)	39	44	50	56	61	67	72	78	83	89	94	00	06	11	17
A(	88.	88.	88.	88.	88.	88.	88.	89.	89.	89.	89.	89.	89.	89.	89.
86)	71	76	80	84	89	93	98	02	07	11	16	20	24	29	33
A(	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.
87)	03	07	10	13	17	20	23	27	30	33	37	40	43	47	50
A(	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.
88)	36	38	40	42	44	47	49	51	53	56	58	60	62	64	67
A(	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.	89.
89)	68	69	70	71	72	73	74	76	77	78	79	80	81	82	83
A(	90.	90.	90.	90.	90.	90.	90.	90.	90.	90.	90.	90.	90.	90.	90.
90)	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00

# READY RECKONER TABLE FOR

$$A + \underline{B(90-A)}$$

90

	B(	B(	B(	B(	B(	B(	B(	B(	B(	B(	B(	B(	B(	B(	B(
	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90
)	)	)	)	)	)	)	)	)	)	)	)	)	)	)	)
A(	76.	77.	78.	79.	80.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.
1)	16	14	13	12	11	10	09	08	07	06	04	03	02	01	00
A(	76.	77.	78.	79.	80.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.
2)	31	29	27	24	22	20	18	16	13	11	09	07	04	02	00
A(	76.	77.	78.	79.	80.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.

3)	47	43	40	37	33	30	27	23	20	17	13	10	07	03	00
A(	76.	77.	78.	79.	80.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.
4)	62	58	53	49	44	40	36	31	27	22	18	13	09	04	00
A(	76.	77.	78.	79.	80.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.
5)	78	72	67	61	56	50	44	39	33	28	22	17	11	06	00
A(	76.	77.	78.	79.	80.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.
6)	93	87	80	73	67	60	53	47	40	33	27	20	13	07	00
A(	77.	78.	78.	79.	80.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.
7)	09	01	93	86	78	70	62	54	47	39	31	23	16	09	00
A(	77.	78.	79.	79.	80.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.
8)	24	16	07	98	89	80	71	62	53	44	36	27	18	09	00
A(	77.	78.	79.	80.	81.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.
9)	40	30	20	10	00	90	80	70	60	50	40	30	20	10	00
A(	77.	78.	79.	80.	81.	82.	82.	83.	84.	85.	86.	87.	88.	89.	90.
10)	56	44	33	22	11	00	89	78	67	56	44	33	22	11	00
A(	77.	78.	79.	80.	81.	82.	82.	83.	84.	85.	86.	87.	88.	89.	90.
11)	71	59	47	34	22	10	98	86	73	61	49	37	24	12	00
A(	77.	78.	79.	80.	81.	82.	83.	83.	84.	85.	86.	87.	88.	89.	90.
12)	87	73	60	47	33	20	07	93	80	67	53	40	27	13	00
A(	78.	78.	79.	80.	81.	82.	83.	84.	84.	85.	86.	87.	88.	89.	90.
13)	02	88	73	59	44	30	16	01	87	72	18	43	29	16	00
A(	78.	79.	79.	80.	81.	82.	83.	84.	84.	85.	86.	87.	88.	89.	90.
14)	18	02	87	71	56	40	24	09	93	78	02	47	31	16	00
A(	78.	79.	80.	80.	81.	82.	83.	84.	85.	85.	86.	87.	88.	89.	90.
15)	33	17	00	83	67	50	33	17	00	83	61	50	33	17	00
A(	78.	79.	80.	80.	81.	82.	83.	84.	85.	85.	86.	87.	88.	89.	90.
16)	49	31	13	96	78	60	42	24	07	89	71	53	36	21	00
A(	78.	79.	80.	81.	81.	82.	83.	84.	85.	85.	86.	87.	88.	89.	90.
17)	64	46	27	08	89	70	51	32	13	94	76	57	38	19	00
A(	78.	79.	80.	81.	82.	82.	83.	84.	85.	86.	86.	87.	88.	89.	90.
18)	80	60	40	20	00	80	60	40	20	00	80	60	40	20	00
A(	78.	79.	80.	81.	82.	82.	83.	84.	85.	86.	86.	87.	88.	89.	90.
19)	96	74	53	32	71	90	69	48	27	06	84	63	42	21	00
A(	79.	79.	80.	81.	82.	83.	83.	84.	85.	86.	86.	87.	88.	89.	90.
20)	11	89	67	44	22	00	78	56	33	11	89	67	44	22	00
A(	79.	80.	80.	81.	82.	83.	83.	84.	85.	86.	86.	87.	88.	89.	90.
21)	27	03	80	57	33	10	87	63	40	17	93	70	47	23	00
A(	79.	80.	81.	81.	82.	83.	83.	84.	85.	86.	86.	87.	88.	89.	90.
22)	42	18	93	69	44	20	96	71	47	22	98	73	49	24	00
A(	79.	80.	81.	81.	82.	83.	84.	84.	85.	86.	87.	87.	88.	89.	90.
23)	58	32	07	81	56	30	04	79	53	28	02	77	51	26	00
A(	79.	80.	81.	81.	82.	83.	84.	84.	85.	86.	87.	87.	88.	89.	90.
24)	73	47	20	93	67	40	13	87	60	33	07	80	53	27	00
A(	79.	80.	81.	82.	82.	83.	84.	84.	85.	86.	87.	87.	88.	89.	90.
25)	89	61	33	06	78	50	22	94	67	39	11	80	56	28	00
A(	80.	80.	81.	82.	82.	83.	84.	85.	85.	86.	87.	87.	88.	89.	90.
26)	04	76	47	18	89	60	31	02	73	44	16	89	58	29	00
A(	80.	80.	81.	82.	83.	83.	84.	85.	85.	86.	87.	87.	88.	89.	90.
27)	20	90	60	30	00	70	40	10	80	50	20	90	60	30	00

A(28)	80.36	81.04	81.73	82.42	83.11	83.80	84.49	85.18	85.87	86.56	87.24	87.93	88.62	89.31	90.00
A(29)	80.51	81.19	81.87	82.54	83.22	83.90	84.58	85.26	85.93	86.61	87.29	87.97	88.64	89.32	90.00
A(30)	80.67	81.33	82.00	82.67	83.33	84.00	84.67	85.33	86.00	86.67	87.33	88.00	88.67	89.33	90.00
A(31)	80.82	81.48	82.13	82.79	83.44	84.10	84.76	85.41	86.07	86.72	87.38	88.03	88.69	89.34	90.00
A(32)	80.98	81.62	82.27	82.91	83.56	84.20	84.84	85.49	86.13	86.78	87.42	88.07	88.70	89.36	90.00
A(33)	81.13	81.77	82.40	83.03	83.67	84.30	84.93	85.57	86.20	86.83	87.47	88.10	88.73	89.37	90.00
A(34)	81.29	81.91	82.53	83.16	83.78	84.40	85.02	85.64	86.27	86.89	87.51	88.13	88.76	89.38	90.00
A(35)	81.44	82.06	82.67	83.28	83.89	84.50	85.11	85.72	86.33	86.94	87.56	88.17	88.78	89.39	90.00
A(36)	81.60	82.20	82.80	83.40	84.00	84.60	85.20	85.80	86.40	87.00	87.60	88.20	88.80	89.40	90.00
A(37)	81.76	82.34	82.93	83.53	84.11	84.70	85.29	85.88	86.47	87.06	87.64	88.23	88.82	89.41	90.00
A(38)	81.91	82.49	83.07	83.64	84.22	84.80	85.38	85.96	86.53	87.11	87.69	88.27	88.84	89.42	90.00
A(39)	82.07	82.63	83.20	83.77	84.33	84.90	85.47	86.03	86.60	87.17	87.73	88.30	88.87	89.43	90.00
A(40)	82.22	82.78	83.33	83.89	84.44	85.00	85.56	86.11	86.67	87.22	87.78	88.33	88.89	89.44	90.00
A(41)	82.38	82.92	83.47	84.01	84.56	85.10	85.64	86.19	86.73	87.28	87.82	88.37	88.91	89.46	90.00
A(42)	82.53	83.07	83.60	84.13	84.67	85.20	85.73	86.27	86.80	87.33	87.87	88.40	88.93	89.46	90.00
A(43)	82.69	83.21	83.73	84.26	84.78	85.30	85.82	86.34	86.87	87.39	87.91	88.43	88.96	89.48	90.00
A(44)	82.84	83.36	83.87	84.38	84.89	85.40	85.91	86.42	86.93	87.44	87.96	88.47	88.98	89.49	90.00
A(45)	83.00	83.50	84.00	84.50	85.00	85.50	86.00	86.50	87.00	87.50	88.00	88.50	89.00	89.50	90.00

# READY RECKONER TABLE FOR

A+B (90-A)

90

	B(76)	B(77)	B(78)	B(79)	B(80)	B(81)	B(82)	B(83)	B(84)	B(85)	B(86)	B(87)	B(88)	B(89)	B(90)
A(	83.	83.	84.	84.	85.	85.	86.	86.	87.	87.	88.	88.	89.	89.	90.

46)	16	64	13	62	11	60	09	58	07	56	04	53	02	51	00
A(	83.	83.	84.	84.	85.	85.	86.	86.	87.	87.	88.	88.	89.	89.	90.
47)	31	79	27	74	22	70	18	66	13	61	09	57	05	52	00
A(	83.	83.	84.	84.	85.	85.	86.	86.	87.	87.	88.	88.	89.	89.	90.
48)	47	93	40	87	33	80	27	73	20	67	13	60	07	53	00
A(	83.	84.	84.	84.	85.	85.	86.	86.	87.	87.	88.	88.	89.	89.	90.
49)	62	08	53	99	44	90	36	81	27	72	18	63	09	54	00
A(	83.	84.	84.	85.	85.	86.	86.	86.	87.	87.	88.	87.	89.	89.	90.
50)	78	22	67	11	56	00	44	89	33	78	22	67	11	56	00
A(	83.	84.	84.	85.	85.	86.	86.	86.	87.	87.	88.	88.	89.	89.	90.
51)	93	37	80	23	67	10	53	97	40	83	27	70	13	57	00
A(	84.	84.	84.	85.	85.	86.	86.	87.	87.	87.	88.	88.	89.	89.	90.
52)	09	66	93	36	78	20	62	04	47	89	31	73	16	58	00
A(	84.	84.	85.	85.	85.	86.	86.	87.	87.	87.	88.	88.	89.	89.	90.
53)	24	66	07	48	89	30	71	12	53	94	36	77	18	59	00
A(	84.	84.	85.	85.	86.	86.	86.	87.	87.	88.	88.	88.	89.	89.	90.
54)	40	80	20	60	00	40	80	20	60	00	40	80	20	60	00
A(	84.	84.	85.	85.	86.	86.	86.	87.	87.	88.	88.	88.	89.	89.	90.
55)	56	94	33	72	11	50	89	28	67	06	44	83	22	61	00
A(	84.	85.	85.	85.	86.	86.	86.	87.	87.	88.	88.	88.	89.	89.	90.
56)	71	09	47	84	22	60	98	36	73	11	49	87	24	62	00
A(	84.	85.	85.	85.	86.	86.	87.	87.	87.	88.	88.	88.	89.	89.	90.
57)	87	23	60	97	33	70	07	43	80	17	53	90	27	63	00
A(	85.	85.	85.	86.	86.	86.	87.	87.	87.	88.	88.	88.	88.	89.	90.
58)	02	38	73	09	44	80	16	51	87	22	58	93	29	64	00
A(	85.	85.	85.	86.	86.	86.	87.	87.	87.	88.	88.	88.	89.	89.	90.
59)	18	52	87	21	56	90	24	59	93	28	62	97	31	66	00
A(	85.	85.	86.	86.	86.	87.	87.	87.	88.	88.	88.	89.	89.	89.	90.
60)	33	67	00	33	67	00	33	67	00	33	67	00	67	67	00
A(	85.	85.	86.	86.	86.	87.	87.	87.	88.	88.	88.	89.	89.	89.	90.
61)	49	81	13	46	78	10	42	74	07	39	71	03	36	68	00
A(	85.	85.	86.	86.	86.	87.	87.	87.	88.	88.	88.	89.	89.	89.	90.
62)	64	96	27	58	89	20	51	82	13	44	76	07	38	69	00
A(	85.	86.	86.	86.	87.	87.	87.	87.	88.	88.	88.	89.	89.	89.	90.
63)	80	10	40	70	00	30	60	90	20	50	80	10	40	70	00
A(	85.	86.	86.	86.	87.	87.	87.	87.	88.	88.	88.	89.	89.	89.	90.
64)	96	24	53	82	11	40	69	98	27	56	84	13	42	71	00
A(	86.	86.	86.	86.	87.	87.	87.	88.	88.	88.	88.	89.	89.	89.	90.
65)	11	39	67	94	22	50	78	06	33	61	89	17	44	72	00
A(	86.	86.	86.	87.	87.	87.	87.	88.	88.	88.	88.	89.	89.	89.	90.
66)	27	53	80	07	33	60	87	13	40	67	93	20	47	73	00
A(	86.	86.	86.	87.	87.	87.	87.	88.	88.	88.	88.	89.	89.	89.	90.
67)	42	68	93	19	44	70	96	21	47	72	98	23	49	74	00
A(	86.	86.	87.	87.	87.	87.	88.	88.	88.	88.	89.	89.	89.	89.	90.
68)	58	87	07	31	56	80	04	29	53	78	02	27	51	76	00
A(	86.	86.	87.	87.	87.	87.	88.	88.	88.	88.	89.	89.	89.	89.	90.
69)	73	97	20	43	67	90	13	37	60	83	07	30	53	77	00
A(	86.	87.	87.	87.	87.	88.	88.	88.	88.	88.	89.	89.	89.	89.	90.
70)	89	41	33	56	78	00	22	44	67	89	11	33	56	78	00

[illegible]

Appendix - III of Annexure. A

STANDING HEIGHTS FOR INDIAN POPULATION (IN INCHES) MEAN AND STANDARD DEVIATIONS

Age	Mean	S.D.	-2S.D.	Mean	S.D.	-2S.D.
Less than	22.13	2.32	17.49	21.65	2.13	17.39
3 months						
3 months	24.68	1.58	21.52	23.98	2.40	21.80
+						
6 months	25.55	3.19	19.17	25.35	1.43	22.49
+						
9 months	27.36	1.77	23.82	26.26	1.52	23.22
+						
1 year +	29.09	2.07	24.95	28.54	2.04	24.46
2 year +	32.13	2.10	27.93	31.53	2.28	26.97
3 year +	34.96	2.58	29.80	34.33	2.50	29.33
4 year +	37.80	2.65	32.50	37.20	2.50	32.20
5 year +	40.19	3.16	33.84	39.92	2.90	34.12
6 year +	42.71	2.81	37.09	42.28	3.41	35.46
7 year +	44.84	3.41	38.02	44.04	3.34	37.72
8 year +	46.96	2.89	41.18	46.53	3.03	40.47
9 year +	48.70	3.65	41.40	48.38	2.96	42.46
10 year +	48.97	3.93	41.11	50.55	3.15	44.25
11 year +	52.51	3.83	44.86	52.60	3.73	45.14
12 year +	54.45	3.99	46.47	54.80	4.03	46.74
13 year +	56.93	3.84	49.25	56.65	3.63	49.39
14 year +	59.10	3.95	51.20	58.07	3.82	50.43
15 year +	61.22	3.94	53.34	58.89	3.27	52.35
16 year +	62.79	3.84	55.11	59.44	2.80	53.84
17 year +	63.54	4.11	55.32	59.64	2.95	53.74
18 year +	64.21	3.76	56.69	59.72	2.31	55.10
19 year +	64.37	3.79	56.79	59.72	2.31	55.10
20 year +	64.60	2.75	59.10	59.72	2.32	55.08
21 year +	64.64	2.40	59.84	60.24	2.24	55.76



## **AMENDED RULES FOR PERSONS WITH DISABILITIES**

GOVERNMENT OF INDIA

MINISTRY OF SOCIAL JUSTICE AND EMPOWERMENT

### **NOTIFICATION**

**NEW DELHI, THE , 2009**

In exercise of the powers conferred by sub-sections (1) and (2) of section 73 of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 (1 of 1996), the Central Government hereby makes the following rules to amend the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Rules, 1996, namely:-

1. (1) These rules may be called the Persons with Disabilities (Equal Opportunities,

Protection of Rights and Full Participation) Amendment Rules, 2009.

(2) They shall come into force from the date of their publication in the Official Gazette.

2. In the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Rules, 1996, -

(i) for rule 2, the following rule shall be substituted, namely:-

### **"2. Definitions.-**

1. In these rules unless the context otherwise requires,-

a. "Act" means the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 (1 of 1996);

b. "certificate" or "disability certificate" means a certificate issued in pursuance of clause (t) of section 2 of the Act;

c. "multiple disabilities" means a combination of two or more disabilities as defined in clause (l) of section 2 of the Act;

d. "Form" means a form appended to these rules.

e. Words and expressions defined in the Act but not defined in these rules, shall have the meanings respectively assigned to them in the Act.";

(ii) for CHAPTER II, the following Chapter shall be substituted, namely :-

### **"CHAPTER II**

### **DISABILITY CERTIFICATE**

### **3. Application for issue of disability certificate -**

1. A person with disability desirous of getting a certificate in his favour shall submit an application in Form I, and the application shall be accompanied by
  - a. proof of residence, and
  - b. two recent passport size photographs.

**2. The application shall be submitted to -**

- a. a medical authority competent to issue such a certificate in the district of the applicant's residence as mentioned in the proof of residence submitted by him with the application, or
- b. the concerned medical authority in a government hospital where he may be undergoing or may have undergone treatment in connection with his disability :

Provided that where a person with disability is a minor or suffering from mental retardation or any other disability which renders him unfit or unable to make such an application himself, the application on his behalf may be made by his legal guardian.

**4. Issue of disability certificate -**

1. On receipt of an application under rule 3, the medical authority shall, after satisfying himself that the applicant is a person with disability as defined in sub-clause (t) of section 2 of the Act, issue a disability certificate in his favour in Form II, Form III or Form IV as applicable.
2. The certificate shall be issued as far as possible, within a week from the date of receipt of the application by the medical authority, but in any case, not later than one month from such date.
3. The medical authority shall, after due examination, -
  - i. give a permanent disability certificate in cases where there are no chances of variation, over time, in the degree of disability, and
  - ii. shall indicate the period of validity in the certificate, in cases where there is any chance of variation, over time, in the degree of disability.
4. If an applicant is found ineligible for issue of disability certificate, the medical authority shall explain to him the reasons for rejection of his application, and shall also convey the reasons to him in writing.
5. A copy of every disability certificate issued under these rules by a medical authority other than the Chief Medical Officer shall be simultaneously sent by such medical authority to the Chief Medical Officer of the District.

**5. Review of a decision regarding issue of, or refusal to issue, a disability certificate -**

1. Any applicant for a disability certificate, who is aggrieved by the nature of a certificate issued to him, or by refusal to issue such a certificate in his favour, as the case may be, may represent against such a decision to the medical authority as specified for the purpose by the appropriate Government:

Provided that where a person with disability is a minor or suffering from mental retardation or any other disability which renders him unfit or unable to make such an application himself, the application on his behalf may be made by his legal guardian.

2. The application for review shall be accompanied by a copy of the certificate or letter of rejection being appealed against.
3. On receipt of an application for review, the medical authority shall, after giving the appellant an opportunity of being heard, pass such orders on it as it may deem appropriate.
4. An application for review shall, as far as possible, be disposed of within a fortnight from the date of its receipt, but in any case, not later than one month from such date.

**6. Certificate issued under rule 4 to be generally valid for all purposes**

A certificate issued under rule 4 shall render a person eligible to apply for facilities, concessions and benefits admissible under schemes of the Government and of Non-Governmental Organizations funded by the Government, subject to such conditions as may be specified in relevant schemes or instructions of Government, etc., as the case may be." ;

(iii) for rule 43, the following rules shall be substituted, namely:-

**"43. Qualification for appointment of Chief Commissioner -**

In order to be eligible for the appointment as Chief Commissioner, a person must satisfy the following conditions, namely:-

- i. he should have special knowledge or practical experience in respect of matters relating to rehabilitation of persons with disabilities;
- ii. he should not have attained the age of sixty years on the 1st January of the year in which the last date for receipt of applications, as specified in the advertisement issued under sub-rule(1) of rule 43 A, falls;
- iii. if he is in service under the Central Government or a State Government, he shall seek retirement from such service before his appointment to the post; and
- iv. he must possess the following educational qualification and experience, namely

**(A) Educational qualifications.-**

- i. Essential: Graduate from a recognised university
- ii. Desirable: Recognised degree/diploma in Social Work/ Law/ Management/ Human Rights/ Rehabilitation/ Education of Disabled Persons.

**(B) Experience.-**

Should have at least twenty-five years experience in one or more of the following types of organizations at specified levels:-

- a. In a Group 'A' level post in Central/State Government/Public Sector Undertaking/Semi Government or Autonomous Bodies dealing with disability related matters and/or social sector (health/education/poverty alleviation/ women and child development); or
- b. A senior level functionary in a registered national or international level voluntary organisation working in the field of disability/social development; or
- c. Senior Executive position in a leading private sector organisation, involved in social work and in charge of handling social development activities of the organization:

Provided that out of the total twenty-five years experience mentioned above, at least three years of experience in the recent past should have been in the field of empowerment of persons with disabilities

#### **43A. Mode of appointment of the Chief Commissioner -**

1. About six months before the post of Chief Commissioner is due to fall vacant, an advertisement shall be published in at least two national level dailies each in English and Hindi inviting applications for the post from eligible candidates fulfilling the criteria mentioned in rule 43.
2. A Search-cum-Selection Committee shall be constituted to recommend a panel of three suitable candidates for the post of the Chief Commissioner.
3. Composition of the Committee will be governed by relevant instructions issued by the Department of Personnel and Training from time to time.
4. The panel recommended by the Committee may consist of persons from amongst those who have applied in response to the advertisement mentioned in sub-rule (1) above, as well as other eligible persons whom the Committee may consider suitable.
5. The Central Government shall appoint one of the candidates recommended by the Search-cum-Selection Committee as the Chief Commissioner.

#### **43B. Term of the Chief Commissioner -**

- The Chief Commissioner shall be appointed on full-time basis for a period of three years from the date on which he assumes office, or till he attains the age of sixty-five years, whichever is earlier.
- A person may serve as Chief Commissioner for a maximum of two terms, subject to the upper age limit of sixty-five years.

**43C. Salary and allowances of the Chief Commissioner -**

1. The salary and allowances of the Chief Commissioner shall be the salary and allowances as admissible to a Secretary to the Government of India.
2. Where a Chief Commissioner, being a retired Government Servant or a retired employee of any institution or autonomous body funded by the Government, is in receipt of pension in respect of such previous service, the salary admissible to him under these rules shall be reduced by the amount of the pension, and if he had received in lieu of a portion of the pension, the commuted value thereof, by the amount of such commuted portion of the pension.

**43D. Other terms and conditions of service of the Chief Commissioner -**

**1. Leave -**

The Chief Commissioner shall be entitled to such leave as is admissible to Government servants under the Central Civil Service (Leave) Rules, 1972.

**2. Leave Travel Concession -**

The Chief Commissioner shall be entitled to such Leave Travel Concession as is admissible to Group 'A' officers under Central Civil Service (LTC) Rules, 1988.

**3. Medical Benefits -**

The Chief Commissioner shall be entitled to such medical benefits as is admissible to Group 'A' officers under the Central Government Health Scheme (CGHS).

**43E. Resignation and removal -**

1. The Chief Commissioner may, by notice in writing, under his hand, addressed to the Central Government, resign his post.
2. The Central Government shall remove a person from the office of the Chief Commissioner, if he -
  - a. becomes an undischarged insolvent;
  - b. engages during his term of office in any paid employment or activity outside the duties of his office;
  - c. gets convicted and sentenced to imprisonment for an offence which in the opinion of the Central Government involves moral turpitude;

- d. is in the opinion of the Central Government, unfit to continue in office by reason of infirmity of mind or body or serious default in the performance of his functions as laid down in the Act;
- e. without obtaining leave of absence from the Central Government, remains absent from duty for a consecutive period of 15 days or more; or
- f. has, in the opinion of the Central Government, so abused the position of the Chief Commissioner as to render his continuance in office detrimental to the interest of persons with disability:

Provided that no person shall be removed under this rule except after following the procedure, mutatis mutandis, prescribed for removal of a Group 'A' employee of the Central Government.

3. The Central Government may suspend a Chief Commissioner, in respect of whom proceedings for removal have been commenced in accordance with sub-rule (2), pending conclusion of such proceedings.

**43F. Residuary provision -**

Conditions of service of a Chief Commissioner in respect of which no express provision has been made in these rules shall be determined by the rules and orders for the time being applicable to a Secretary to the Government of India.";

(iv) after rule 45 and before FORM DPER-I, the following Forms shall be inserted, namely:-

"Form-I APPLICATION FOR OBTAINING DISABILITY CERTIFICATE BY PERSONS WITH DISABILITIES

(See rule 3)

1. Name:

(Surname) \_\_\_\_\_ (First name) \_\_\_\_\_ (Middle name) \_\_\_\_\_

2. Father's name: \_\_\_\_\_ Mother's name: \_\_\_\_\_

3. Date of Birth: (date) \_\_\_\_\_ / (month) \_\_\_\_\_ / (year) \_\_\_\_\_

4. Age at the time of application: \_\_\_\_\_ years

5. Sex: \_\_\_\_\_ Male/Female

6. Address:

(a) Permanent address

(b) Current Address (i.e. for communication)

(c) Period since when residing at current address

7. Educational Status (Pl. tick as applicable)

- i. Post Graduate
- ii. Graduate
- iii. Diploma
- iv. Higher Secondary
- v. High School
- vi. Middle
- vii. Primary
- viii. Illiterate

8. Occupation \_\_\_\_\_

9. Identification marks (i) \_\_\_\_\_ (ii) \_\_\_\_\_

10. Nature of disability: locomotor/hearing/visual/mental/others

11. Period since when disabled: From Birth/Since year \_\_\_\_\_

12. (i) Did you ever apply for issue of a disability certificate in the past  
\_\_\_\_\_ YES/NO

(ii) If yes, details:

a. Authority to whom and district in which applied \_\_\_\_\_

b. Result of application \_\_\_\_\_

13. Have you ever been issued a disability certificate in the past? If yes, please enclose a true copy.

Declaration: I hereby declare that all particulars stated above are true to the best of my knowledge and belief, and no material information has been concealed or misstated. I further, state that if any inaccuracy is detected in the application, I shall be liable to forfeiture of any benefits derived and other action as per law.

\_\_\_\_\_  
(Signature or left thumb impression of person with disability, or of his/her legal guardian in case of persons with mental retardation, autism, cerebral palsy and multiple disabilities)

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Encl: \_\_\_\_\_

1. Proof of residence (Please tick as applicable)

- a. ration card,
- b. voter identity card,
- c. driving license,
- d. bank passbook
- e. PAN card,
- f. passport,

- g. telephone, electricity, water and any other utility bill indicating the address of the applicant,
  - h. a certificate of residence issued by a Panchayat, municipality, cantonment board, any gazetted officer, or the concerned Patwari or Head Master of a Govt. school,
  - i. in case of an inmate of a residential institution for persons with disabilities, destitute, mentally ill, etc., a certificate of residence from the head of such institution.
2. Two recent passport size photographs

(For office use only)

Date:

Place:

Signature of issuing authority Stamp

Form-II

**Disability Certificate**

**(In cases of amputation or complete permanent paralysis of limbs and in cases of blindness)**

**(See rule 4)**

**(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)**

**Recent PP size attested photograph (showing face only) of the person with disability**

Certificate No. \_\_\_\_\_

Date: \_\_\_\_\_

This is to certify that I have carefully examined

Shri/Smt./Kum. \_\_\_\_\_

\_\_\_\_\_ son/wife/daughter of

Shri \_\_\_\_\_ Date of

Birth (DD / MM / YY) \_\_\_\_\_ Age \_\_\_\_\_ years, male/female

Registration No. \_\_\_\_\_ permanent resident of House

No. \_\_\_\_\_ Ward/Village/

Street \_\_\_\_\_ Post

Office \_\_\_\_\_

District \_\_\_\_\_ State \_\_\_\_\_, whose photograph is affixed above, and am satisfied that :

(A) he/she is a case of:

-locomotor disability

-blindness

(Please tick as applicable)

(B) the diagnosis in his/her case is \_\_\_\_\_

A) He/She has \_\_\_\_\_%(in figure) \_\_\_\_\_

percent (in words) permanent physical impairment/blindness in relation to his/her \_\_\_\_\_(part of body) as per guidelines (to be specified).



2. The applicant has submitted the following document as proof of residence:-

Nature of Document	Date of issue	Details of authority issuing certificate

(Signature and Seal of Authorised Signatory of notified Medical Authority)  
Signature/Thumb impression of the person whose favour disability certificate is issued

Form-III

Disability Certificate

(In case of multiple disabilities)

(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)

(See rule 4)

Recent PP size attested photograph (showing face only) of the person with disability

Certificate No.

Date:

This is to certify that we have carefully examined  
Shri/Smt./Kum. \_\_\_\_\_

\_\_\_\_\_/son/wife/daughter of

Shri \_\_\_\_\_

Date of Birth (DD / MM / YY) \_\_\_\_\_ Age \_\_\_\_\_ years,

male/female \_\_\_\_\_ Registration

No. \_\_\_\_\_ permanent resident of House

No. \_\_\_\_\_ Ward/Village/Street \_\_\_\_\_

\_\_\_\_\_ Post

Office \_\_\_\_\_ District \_\_\_\_\_ State \_\_\_\_\_

\_\_\_\_\_, whose photograph is affixed above, and are satisfied that:

(A) He/she is a Case of **Multiple Disability**. His/her extent of permanent physical impairment/disability has been evaluated as per guidelines (to be specified) for the disabilities ticked below, and shown against the relevant disability in the table below:

S. No	Disability	Affected part of Body	Diagnosis	Permanent physical impairment/mental disability (in %)
1	Locomotor disability	@		
2	Low vision	#		
3	Blindness	Both Eyes		
4	Hearing impairment	£		

5	Mental retardation	X		
6	Mental illness	X		

(B) In the light of the above, his /her over all permanent physical impairment as per guidelines(to be specified), is as follows:-

In figures:- \_\_\_\_\_ percent

In words:- \_\_\_\_\_

\_\_\_\_\_ percent

2. This condition is progressive/ non-progressive/ likely to improve/ not likely to improve.

3. Reassessment of disability is:

(i) not necessary,

Or

(ii) is recommended/ after \_\_\_\_\_ years \_\_\_\_\_ months, and therefore this certificate shall be valid till (DD / MM / YY) \_\_\_\_\_

@ - e.g. Left/Right/both arms/legs

# - e.g. Single eye/both eyes

£ - e.g. Left/Right/both ears

4. The applicant has submitted the following document as proof of residence:-

Nature of Document	Date of issue	Details of authority issuing certificate

5. Signature and seal of the Medical Authority.

Name and seal of Member	Name and seal of Member	Name and seal of the Chairperson

Signature/ Thumb impression in whose favour disability certificate is issued  
Form-IV

**Disability Certificate**

(In cases other than those mentioned in Forms II and III)

**(NAME AND ADDRESS OF THE MEDICAL AUTHORITY ISSUING THE CERTIFICATE)**

(See rule 4)

Recent pp size attested photograph Attested  
Certificate No.

Date:

This is to certify that I have carefully examined  
Shri/Smt./Kum. \_\_\_\_\_

\_\_\_\_\_ son/wife/daughter of

Shri \_\_\_\_\_

Date of Birth (DD / MM / YY) \_\_\_\_\_ Age \_\_\_\_\_ years,  
male/female \_\_\_\_\_ Registration  
No. \_\_\_\_\_ permanent resident of House  
No. \_\_\_\_\_ Ward/Village/Street \_\_\_\_\_  
Post Office \_\_\_\_\_  
District \_\_\_\_\_ State \_\_\_\_\_, whose photograph is affixed  
above, and am satisfied that he/she is a case  
of \_\_\_\_\_ disability. His/her extent of percentage  
physical impairment/disability has been evaluated as per guidelines (to be  
specified) and is shown against the relevant disability in the table below:-

S. No	Disability	Affected part of Body	Diagnosis	Permanent physical impairment/mental disability (in %)
1	Locomotor disability	⊙		
2	Low vision	#		
3	Blindness	Both Eyes		
4	Hearing Impairment	£		
5	Mental retardation	X		
6	Mental illness	X		

(Please strike out the disabilities which are not applicable.)

2. The above condition is progressive/ non-progressive/ likely to improve/ not likely to improve.

3. Reassessment of disability is :

(i) not necessary,

Or

(ii) is recommended/ after \_\_\_\_\_ years \_\_\_\_\_ months, and therefore this certificate shall be valid till (DD / MM / YY) \_\_\_\_\_

⊙ - e.g. Left/Right/both arms/legs

# - e.g. Single eye/both eyes

£ - e.g. Left/Right/both ears

4. The applicant has submitted the following document as proof of residence:-

Nature of Document	Date of Issue	Details of authority issuing certificate

(Authorised Signatory of notified Medical Authority)

(Name and Seal)

Countersigned

{Countersignature and seal of the CMO/Medical Superintendent/Head of Government Hospital, in case the certificate is issued by a medical authority who is not a government servant (with seal)}

Signature/ Thumb impression in whose favour disability certificate is issued

Note: In case this certificate is issued by a medical authority who is not a government servant, it shall be valid only if countersigned by the Chief Medical Officer of the District.

Note: The principal rules were published in the Gazette of India vide notification number S.O. 908(E), dated the 31st December, 1996.

Form-V

**Intimation of Rejection of Application for Disability Certificate (See rule 4)**

No. \_\_\_\_\_

Dated: \_\_\_\_\_

To,

(Name and address of applicant for Disability Certificate)

Sub.: Rejection of Application for Disability Certificate

Sir/Madam,

Please refer to your application dated \_\_\_\_\_ for issue of a Disability Certificate for the following disability:

2. Pursuant to the above application, you have been examined by the undersigned/Medical Board on \_\_\_\_\_, and I regret to inform that, for the reasons mentioned below, it is not possible to issue a disability certificate in your favour:

(i)

(ii)

(iii)

3. In case you are aggrieved by the rejection of your application, you may represent to \_\_\_\_\_, requesting for review of this decision.

Yours faithfully,

(Authorised Signatory of the notified Medical Authority)

(Name and Seal)

(Dr. Arbind Prasad)

Joint Secretary to the Govt. of India

Ministry of Social Justice & Empowerment

**Government of Maharashtra**

"Form-I

**APPLICATION FOR OBTAINING DISABILITY CERTIFICATE BY PERSONS WITH DISABILITIES**

(See rule 3)

1. Name: (Surname) \_\_\_\_\_ (First name) \_\_\_\_\_ (Middle name) \_\_\_\_\_  
2. Father's name: \_\_\_\_\_ Mother's name: \_\_\_\_\_ Male/Female \_\_\_\_\_  
3. Date of Birth: (date) \_\_\_\_\_ / (month) \_\_\_\_\_ / (year) \_\_\_\_\_  
4. Age at the time of application: \_\_\_\_\_ years  
5. Address:  
(a) Permanent address \_\_\_\_\_  
(b) Current Address (i.e. for communication) \_\_\_\_\_

(c) Period since when residing at current address : \_\_\_\_\_

**6. Educational Status (Pl. tick as applicable)**

- i. Post Graduate    ii. Graduate    iii. Diploma    iv. Higher Secondary  
v. High School    vi. Middle    vii. Primary    viii. Illiterate

**7. Occupation** \_\_\_\_\_

8. Identification marks (i) \_\_\_\_\_ (ii) \_\_\_\_\_

9. Nature of disability: locomotor/hearing/visual/mental/others \_\_\_\_\_

10. Period since when disabled: From Birth/Since year \_\_\_\_\_

11. (i) Did you ever apply for issue of a disability certificate in the past \_\_\_\_\_ YES/NO

(ii) If yes, details: \_\_\_\_\_

a. Authority to whom and district in which applied \_\_\_\_\_

b. Result of application \_\_\_\_\_

13. Have you ever been issued a disability certificate in the past? If yes, please enclose a true copy.

Declaration: I hereby declare that all particulars stated above are true to the best of my knowledge and belief, and no material information has been concealed or misstated. I further, state that if any inaccuracy is detected in the application, I shall be liable to forfeiture of any benefits derived and other action as per law.

(Signature or left thumb impression of person with disability, or of his/her legal guardian in case of persons with mental retardation, autism, cerebral palsy and multiple disabilities)

Date: \_\_\_\_\_ Place: \_\_\_\_\_

Encl:

**1. Proof of residence (Please tick as applicable)**

- a. ration card,    b. voter identity card    c. driving license,  
d. bank passbook    e. PAN card    f. passport  
g. telephone, electricity, water and any other utility bill indicating the address of the applicant,  
h. a certificate of residence issued by a Panchayat, municipality, cantonment board  
i. in case of an inmate of a residential institution for persons with disabilities, destitute, mentally ill, etc., a certificate of residence from the head of such institution.  
j. Two recent passport size photographs  
k. Aadhaar Card

(For office use only)

Date: \_\_\_\_\_ Place: \_\_\_\_\_

Signature of issuing  
authority Stamp

शासन निर्णय क्र. अप्रवि-२०१२ प्रक्र. २९७/आरोप्य, दिनांक ६ ऑक्टोबर, २०१२

चे परिशिष्ट क्र.

Government of Maharashtra

Form-II

### Disability Certificate

(In cases of amputation or complete permanent paralysis of limbs and in cases of blindness)  
(See rule 4)

NAME OF THE HOSPITAL

Recent PP size  
attested  
photograph  
(showing face  
only) of the  
person with  
disability

Certificate No. \_\_\_\_\_ Date: \_\_\_\_\_

This is to certify that I have carefully examined

Shri/Smt./Kum.

son/wife/daughter of Shri

Date of Birth (DD / MM / YY) \_\_\_\_\_ Age \_\_\_\_\_ years, male/female Registration

No. \_\_\_\_\_ permanent resident of House No. \_\_\_\_\_ Ward/Village/

Street \_\_\_\_\_ Post Office \_\_\_\_\_

District \_\_\_\_\_ State \_\_\_\_\_, whose photograph is affixed above, and am satisfied  
that :

(A) he/she is a case of: -locomotor disability  
-blindness  
(Please tick as applicable)

(B) the diagnosis in his/her case is \_\_\_\_\_

He/She has \_\_\_\_\_ % (in figure) \_\_\_\_\_ percent (in

words) permanent physical impairment/blindness in relation to his/her

(part of body) as per guidelines (to be specified).

2. The applicant has submitted the following document as proof of residence:-

Nature of Document	Date of Issue	Details of authority issuing certificate
--------------------	---------------	--

(Signature and Seal of Authorised Signatory of notified Medical Authority)

Dr \_\_\_\_\_

Dr \_\_\_\_\_

Dr \_\_\_\_\_

President

Member Secretary

Concerned Specialist

Signature/Thumb impression of the person  
whose favour disability certificate is issued \_\_\_\_\_

**Government of Maharashtra**

Form-III

**Disability Certificate**

(In case of multiple disabilities) (See rule 4)

Recent PP size

attested photograph  
(showing face only)  
of the person with  
disability

(NAME OF THE HOSPITAL) \_\_\_\_\_

Certificate No. \_\_\_\_\_

Date: \_\_\_\_\_

This is to certify that we have carefully examined

Shri/Smt./Kum. \_\_\_\_\_

/son/wife/da

ughter of Shri \_\_\_\_\_

Date of Birth (DD / MM / YY) \_\_\_\_\_

Age \_\_\_\_\_

years, Male / Female \_\_\_\_\_

Registration No. \_\_\_\_\_

Address \_\_\_\_\_

Village /

City \_\_\_\_\_

To \_\_\_\_\_

Dist \_\_\_\_\_

whose photograph

is affixed above, and are satisfied that:

(A) He/she is a Case of **Multiple Disability**. His/her extent of permanent physical impairment/disability has been evaluated as per guidelines (to be specified) for the disabilities ticked below, and shown against the relevant disability in the table below:

S. No	Disability	Affected part of Body	Diagnosis	Permanent physical impairment/mental disability (in %)
1	Locomotor disability	⊙		
2	Low vision	#		
3	Blindness	Both Eyes		
4	Hearing impairment	£		
5	Mental retardation	X		
6	Mental-illness	X		

(B) In the light of the above, his /her over all permanent physical impairment as per guidelines(to be specified), is as follows:-

In figures:- \_\_\_\_\_ percent In words:- \_\_\_\_\_ Percent

2. This condition is progressive/ non-progressive/ likely to improve/ not likely to improve.

3. Reassessment of disability is: (i) not necessary, Or

(ii) is recommended/ after \_\_\_\_\_ years \_\_\_\_\_ months, and therefore this certificate shall be valid till (DD / MM / YY) \_\_\_\_\_

(⊙ - e.g. Left/Right/both arms/legs) (# - e.g. Single eye/both eyes) (£ - e.g. Left/Right/both ears)

4. The applicant has submitted the following document as proof of residence:-

Nature of Document

Date of Issue

Details of authority issuing certificate

5. Signature and seal of the Medical Authority.

Name \_\_\_\_\_

Name \_\_\_\_\_

Name \_\_\_\_\_

President

Member Secretary

Concerned Specialist

Signature/ Thumb impression in whose favour disability certificate is issued \_\_\_\_\_

**Government of Maharashtra**

Form-IV

**Disability Certificate**

(In cases other than those mentioned in Forms II and III) (See rule 4)

(NAME OF THE HOSPITAL) \_\_\_\_\_

Recent pp size  
attested  
photograph  
Attested

Certificate No. \_\_\_\_\_ Date: \_\_\_\_\_

This is to certify that I have carefully examined

Shri/Smt./Kum. \_\_\_\_\_ son/wife

/daughter of Shri \_\_\_\_\_

Date of Birth (DD / MM / YY) \_\_\_\_\_ Age \_\_\_\_\_ years, Male/Female \_\_\_\_\_

Registration No. \_\_\_\_\_ Address \_\_\_\_\_

Village / City \_\_\_\_\_ Tq. \_\_\_\_\_ Dist. \_\_\_\_\_

whose photograph is affixed above, and am satisfied that he/she is a case of \_\_\_\_\_ disability. His/her extent of percentage physical impairment/disability has been evaluated as per guidelines and is shown against the relevant disability in the table below:-

Sr. No	Disability	Affected part of Body	Diagnosis	Permanent physical Impairment/mental disability (in %)
1	Locomotor disability	⊙		
2	Low vision	#		
3	Blindness	#		
4	Hearing impairment	E		
5	Mental retardation	X		
6	Mental-illness	X		

(Please strike out the disabilities which are not applicable.)

2. The above condition is progressive/non-progressive/likely to improve/ not likely to improve.

3. Reassessment of disability is : (i) not necessary, Or (ii) is recommended/ after \_\_\_\_\_ years \_\_\_\_\_ months, and therefore this certificate shall be valid till (DD / MM / YY) \_\_\_\_\_

(⊙ - e.g. Left/Right/both arms/legs) (# - e.g. Single eye/both eyes) (E - e.g. Left/Right/both ears)

4. The applicant has submitted the following document as proof of residence: \_\_\_\_\_

Nature of Document \_\_\_\_\_ Date of issue \_\_\_\_\_ Details of authority issuing certificate \_\_\_\_\_

(Authorised Signatory of notified Medical Authority)  
(Name and Seal)

Signature/ Thumb impression in whose favour disability certificate is issued \_\_\_\_\_



**Government of Maharashtra**

631613-654 25 10 31 0000 0000

(Form-V)

**Intimation of Rejection of Application for Disability Certificate (See rule 4)**

No. \_\_\_\_\_ Dated: \_\_\_\_\_

To,

-----  
-----  
-----

(Name and address of applicant for Disability Certificate)

**Sub.: Rejection of Application for Disability Certificate**

Sir/Madam,

1. Please refer to your application dated \_\_\_\_\_ for issue of a Disability Certificate for the following disability: \_\_\_\_\_
2. Pursuant to the above application, you have been examined by the undersigned/Medical Board on \_\_\_\_\_, and I regret to inform that, for the reasons mentioned below, it is not possible to issue a disability certificate in your favour:
  - (i) \_\_\_\_\_
  - (ii) \_\_\_\_\_
  - (iii) \_\_\_\_\_
3. In case you are aggrieved by the rejection of your application, you may represent to \_\_\_\_\_, requesting for review of this decision.

Yours faithfully,

(Authorised Signatory of the notified Medical Authority)  
(Name and Seal)

**Government of Maharashtra**

Form-10-1A

Disability Certificate

(In case of Autism and Cerebral Palsy)

Recent PP size  
attested photograph  
(showing face only)  
of the person with  
disability

(NAME OF THE HOSPITAL) \_\_\_\_\_

Certificate No. \_\_\_\_\_ Date: \_\_\_\_\_

This is to certify that we have carefully examined

Shri/Smt./Kum. \_\_\_\_\_ /son/wife/daughter of  
Shri \_\_\_\_\_

Date of Birth (DD / MM / YY) \_\_\_\_\_ Age \_\_\_\_\_ years, Male / Female \_\_\_\_\_  
Registration No. \_\_\_\_\_ Address \_\_\_\_\_ Village /  
City \_\_\_\_\_ Tq. \_\_\_\_\_ Dist \_\_\_\_\_ whose photograph  
is affixed above, and are satisfied that:

(A) He/she is a person with ~~disability~~ suffering from  
**Autism / Cerebral Palsy** \_\_\_\_\_

2. This condition is progressive/ non-progressive/ likely to improve/ not likely to improve.

3. Reassessment of disability is: (i) not necessary, Or  
(ii) is recommended/ after \_\_\_\_\_ years \_\_\_\_\_ months, and therefore this  
certificate shall be valid till (DD / MM / YY) \_\_\_\_\_

4. The applicant has submitted the following document as proof of residence:-

Nature of Document

Date of issue

Details of authority issuing certificate

5. Signature and seal of the Medical Authority.

Name \_\_\_\_\_

Name \_\_\_\_\_

Name \_\_\_\_\_

President

Member Secretary

Concerned Specialist

Signature/ Thumb impression in whose favour disability certificate is issued \_\_\_\_\_

शासन निर्णय क्र. अप्रवि-२०१२ प्रक्र २९७/आरोग्य-६, दिनांक ६ ऑक्टोबर, २०१२  
चे परिशिष्ट- ३

**Government of Maharashtra**

**CERTIFICATE OF MENTAL RETARDATION FOR GOVERNMENT BENEFITS**

Recent PP size  
attested photograph  
(showing face only)  
of the person with  
disability

(NAME OF THE HOSPITAL) \_\_\_\_\_

Certificate No. \_\_\_\_\_ Date: \_\_\_\_\_

This is to certify that Shri/Smt./Kum \_\_\_\_\_

Son/ Daughter of \_\_\_\_\_ of Village/Town/City

\_\_\_\_\_ with particulars given below:-

a) Age .....

b) Sex .....

**CATEGORISATION OF MENTAL RETARDATION**

Mild/Moderate/Severe/Profound .....

Validity of the Certificate : Permanent

. The applicant has submitted the following document as proof of residence:-

Nature of Document

Date of Issue

Details of authority issuing certificate

5. Signature and seal of the Medical Authority.

Name -----

President

Name -----

Member Secretary

Name -----

Concerned Specialist

Signature/ Thumb impression in whose favour disability certificate is issued \_\_\_\_\_

Department of the Interior

UNITED STATES OF AMERICA

UNITED STATES OF AMERICA  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
WASHINGTON, D. C.

UNITED STATES OF AMERICA  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
WASHINGTON, D. C.

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BUREAU OF LAND MANAGEMENT  
WASHINGTON, D. C.